

# Annual Report

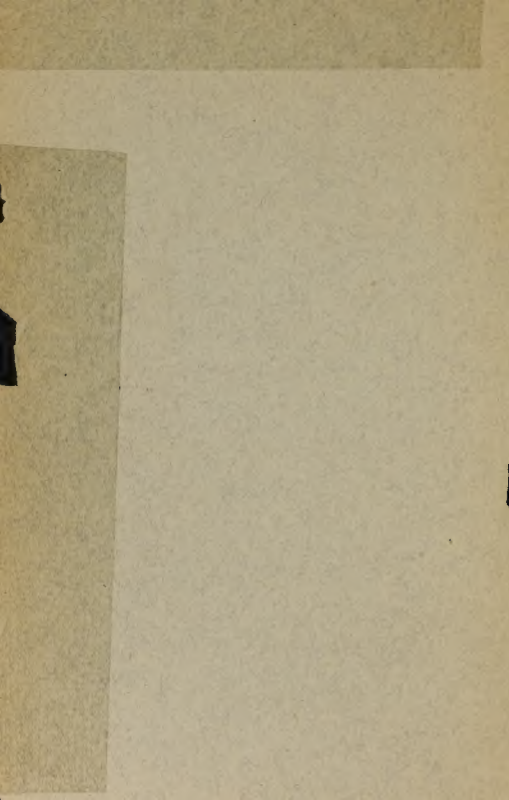
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## Department of Public Health

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CITY OF NEWARK, N. J.

1905







# Annual Report

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COMPLIMENTS OF

DAVID D. CHANDLER,

HEALTH OFFICER.

**Health**

CITY OF NEWARK, N. J.

**1905**



# **Annual Report**

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## **Department of Public Health**

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CITY OF NEWARK, N. J.

**1905**

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# Members of the Board of Health

OF NEWARK, N. J.

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DR. H. C. H. HEROLD, PRESIDENT,	75 Congress Street
DR. C. M. ZEH,	15 Central Avenue
DR. W. S. DISBROW,	151 Orchard Street
MR. C. P. ZIMMERMAN,	881 South 15th Street
DR. J. T. WRIGHTSON,	25 Walnut Street
MR. J. W. DOBBINS,	247 Lake Street
MR. H. C. ROSS,	96 South 10th Street
MR. L. L. DAVENPORT,	198 Garside Street
DR. L. E. HOLLISTER,	138 Clinton Avenue
MR. J. R. RUTAN,	17 Osborne Terrace

## HEALTH OFFICER

MR. DAVID D. CHANDLER,	74 North 7th Street
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## Standing Committees of the Board of Health

FOR THE YEAR 1905.

### SANITATION.

DR. DISBROW.	DR. ZEH,	MR. ZIMMERMAN,
MR. DAVENPORT,		MR. DOBBINS.

### FINANCE.

MR. ZIMMERMAN,	DR. ZEH,	DR. DISBROW.
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### LAWS AND ORDINANCES.

MR. DOBBINS,	MR. ROSS,	MR. RUTAN.
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### RULES.

MR. RUTAN,	DR. ZEH,	MR. DOBBINS.
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### APPOINTMENTS.

MR. ROSS,	DR. WRIGHTSON,	DR. HOLLISTER.
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### SUPPLIES.

MR. DAVENPORT,	MR. DOBBINS,	MR. RUTAN.
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### CITY HOSPITAL.

DR. WRIGHTSON,	MR. ROSS,	MR. ZIMMERMAN,
MR. DAVENPORT,		DR. HOLLISTER.

### TRAINING SCHOOL.

DR. HOLLISTER,	DR. ZEH,	DR. DISBROW,
DR. WRIGHTSON,		DR. HEROLD.

## BOARD OF HEALTH

### MEETINGS.

The regular meetings of the Board are held on the First and Third Tuesdays of each month, at 8.30 P. M. The meeting on the First Tuesday shall be held for the transaction of all business pertaining to the Sanitary Department. The meeting on the Third Tuesday shall be held for the transaction of all business pertaining to the Newark City Hospital.

The regular meetings of the Sanitary Committee will be held on the Thursday preceding the first Tuesday of each month, at 8.30 P. M.

Should the above meeting fall on a legal holiday, then said meeting shall be held on the day previous.

## Employees of the Board of Health

### OFFICE DIVISION

JOHN J. GREENE	<i>Clerk Bureau Contagious Diseases</i> 308 Riverside Avenue
EUGENE W. BELLAR, .....	<i>Clerk Sanitary Division</i> 45 Congress Street
WILLIAM H. YOUNG, ..	<i>Clerk Sanitary Division</i> 62 Hunterdon Street
MISS MARIE C. PERIER	<i>Stenographer to Health Officer</i> 372 High Street
ELBERT S. BALL, ..	<i>Clerk</i> 19 Nichols Street
ED. E. WORL, M. D., .....	<i>Supt. Bureau Contagious Diseases</i> 271 High Street
HERBERT B. BALDWIN, ..	<i>Chemist</i> 927 Broad Street
GEORGE C. SONN, .....	<i>Meteorologist</i> 285 Belleville Avenue

### BACTERIOLOGICAL DIVISION.

DR. R. N. CONNOLLY, ..	<i>Bacteriologist</i> City Hospital Building
DR. THOMAS RIPLEY, ..	<i>Asst Bacteriologist</i> 137 Orchard Street
DR. H. A. TARBELL, ..	<i>Second Asst Bacteriologist</i> 27½ Thomas Street
ERNEST SKILLMAN, ..	<i>Laboratory Assistant</i> 98 Third Street
ALBERT BREIDENBACH, ..	<i>Culture Collector</i> 150 Polk Street

### CITY DISPENSARY.

WILLIAM A. SMITH, ..	<i>Apothecary</i> 21 Court Street
HENRY OLTMAN, ..	<i>Asst. Apothecary</i> 191 South 9th Street
WILLIAM M. GOULD, ..	<i>Dentist</i> 85 Halsey Street
ELLEN GROWNEY, ..	<i>Janitress</i> 125 Commerce Street

## DISTRICT PHYSICIANS

WILLIAM H. SCHOFFER, . . . . .	.43 Read Street
JAMES H. LOWREY, . . . . .	.79 Congress Street
HENRY W. NOLTE, . . . . .	255 Mulberry Street
E. W. SPRAGUE, . . . . .	108 Washington Street
JAMES A. HOFFMAN, . . . . .	.50 Waverly Avenue
SAMUEL H. BALDWIN, . . . . .	.479 Clinton Avenue
CHARLES H. BRUCKNER, . . . . .	118 Newton Street
PLINY W. BARBER, . . . . .	.169 Mt. Prospect Avenue
ALBERT S. HARDEN, . . . . .	540 Warren Street
S. B. W. LEYENBERGER, . . . . .	98 Bloomfield Avenue
CHAUNCEY B. GRIFFITHS, . . . . .	.145 Monmouth Street

## SANITARY DIVISION—MEAT INSPECTORS

WERNER RUNGE, . . . . .	.130 Union Street
DANIEL KUHN, . . . . .	47 Providence Street

## PLUMBING INSPECTORS

JOHN B. SULLIVAN, . . . . .	204 Second Street
JOHN L. WHEALAN, . . . . .	44 Second Street
ED. P. COULSTON, . . . . .	.351 Walnut Street
CHARLES A. HALLGRING, . . . . .	.99 Frederick Street

## FOOD AND DRUG INSPECTOR

OTTO B. SCHALK, . . . . .	.455 Fourth Avenue
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## SANITARY INSPECTORS

WILLIAM H. LYLE, . . . . .	.227 South Sixth Street
LOUIS H. BRIDGEM, . . . . .	.59 Court Street
ANDREW J. BRADY, . . . . .	.17 Howard Street
MORRIS SEIDL, . . . . .	.413 South 8th Street
FORMAN J. REYNOLDS, . . . . .	.182 Summit Street
CHARLES H. BURKE, . . . . .	.125 Union Street
BERNARD CAHILL, . . . . .	79 Fairmount Avenue
HUBERT O'ROURKE, . . . . .	185 Barclay Street
ANTONIO PANZERA, . . . . .	.44 Jefferson Street
SAMUEL G. SHARWELL, . . . . .	.124 Second Street

WILLIAM S WEBB, .....	56 Court Street
PATRICK J KEATING .	421 New Street
GEORGE A VANHOUTEN,.	117 Ridgewood Avenue
WILLIAM HOPPER	142½ Sherman Avenue
JAMES WHELAN,	188½ Parker Street
LOUIS E. BOUTILLIER,.	223 South 9th Street
HENRY MACDONALD,.	325 South 11th Street
GEORGE W. GILMORE,.....	146 Badger Avenue

## DISINFECTING CORPS

SAMUEL KNOTT, <i>Chief</i> ,	279 Plane Street
HIRAM R STEWART,..	.67 Wright Street
LEONARD V. GILLEN,	24 Orchard Street
THOMAS F. NEWTON,.	5½ 8th Avenue
RICHARD J CORBLEY, .	143 Somerset Street
REGINALD RAYMOND,..	105 Chadwick Avenue
THOMAS MULLICAN,.. .	153 Brunswick Street

WILLIAM BLANCHARD,..... *Orderly at Isolation Hospital*  
 Sherman Avenue and Concord Street

GEORGE FRANCISCO,..... *Janitor*  
 177 Penn. Avenue

## District Physicians, 1905.

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- 1st DISTRICT—DR. W. SCHOPFER—District Lines: Polk Street, Lafayette Street, Hamburg Place, Thomas Street and Passaic River.
- 2d DISTRICT—DR. J. H. LOWREY—District Lines: Polk Street, Lafayette Street, Hamburg Place, Thomas Street, Newark Bay, City Line, Avenue "D," Pacific Street, Clifford Street, Jefferson Street and Passaic River.
- 3rd DISTRICT—DR. H. W. NOLTE—District Lines: Jefferson Street, Clifford Street, Pacific Street, Tichenor Street, Broad Street, Market Street, Railroad Place and Passaic River.
- 4th DISTRICT—DR. E. W. SPRAGUE—District Lines: Railroad Place, Market Street, Broad Street, Lincoln Park, Spruce Street, High Street, Central Avenue, Fulton Street and Passaic River.
- 5th DISTRICT—DR. J. A. HOFFMAN—District Lines: High Street, Warren Street, Newark Street, Richmond Street, Rankin Street, Charlton Street, Spruce Street.
- 6th DISTRICT—DR. S. H. BALDWIN—District Lines: Charlton Street, Springfield Avenue, Fifteenth Avenue, City Line, Lyons Avenue, Clinton Place, Hawthorne Avenue, Ridgewood Avenue, Livingston Street, Eighteenth Avenue and Spruce Street.
- 7th DISTRICT—DR. C. H. BRUCKNER—District Lines: Fifteenth Avenue, Springfield Avenue, Rankin Street, Richmond Street, Newark Street, Warren Street, Central Avenue and City Line.
- 8th DISTRICT—DR. P. W. BARBER—District Lines: High Street, Eighth Avenue, Clifton Avenue, Norfolk Street, Central Avenue, Hudson Street, and Warren Street.

- 9th DISTRICT—DR. A. S. HARDEN District Lines: Central Avenue, Warren Street, Hudson Street, Central Avenue, Norfolk Street, Clifton Avenue Bloomfield Avenue and City Line
- 10th DISTRICT—DR. S. B. W. LEYENBERGER -District Lines Fulton Street, Central Avenue, High Street, Eighth Avenue, Clifton Avenue, Bloomfield Avenue, City Line and Passaic River.
- 11th DISTRICT—DR. C. B. GRIFFITHS —District Lines: Avenue "D," Pacific Street, Tichenor Street, Lincoln Park, Spruce Street, Eighteenth Avenue, Livingston Street Ridgewood Avenue and City Line

# ANTITOXIN AND CULTURE STATIONS.

Established by the Board of Health for the Collection of Cultures and Distribution of Antitoxin.

		4320, 4321 N.Y. & N.J. Tel. Nos.
BOARD OF HEALTH OFFICE	880 Broad Street	1493
H. S. BLOOME	77 Ferry Street	1592-J
O. VON GEHREN	200 Ferry Street	1590
L. GRIESENBECK	28 Bowery Street	1312
C. HOLZHAUER	787 Broad Street	1675
E. F. FIELDING	925 Broad Street	3034
GEO. LINNETT & BRO.	77 Lincoln Park	1568
L. D. GREENLIEF	579 Broad Street	3754
E. A. SAYRE	482 Broad Street	1142 Branch Brook
W. R. SCUDDER	95 Belleville Avenue	761
OSBORNE & KLEIN	289 Belleville Avenue	No 'phone
S. EPSTEIN	8th Ave and Factory Street	1319
C. P. MOLL	166 Central Avenue	760 Branch Brook
E. M. AVERY	291 Central Avenue	1539
L. L. STAEBLE	169 South Orange Avenue	1514
D. S. BELDON	315 South Orange Avenue	2023
E. REICHL	362 Springfield Avenue	1447
R. STAEBLER	166 Springfield Avenue	1332-L
W. E. MOORE	503 Clinton Avenue	1391
F. F. CRISSEY	320 Bank Street	151 Branch Brook
J. B. FOSTER	401 Seventh Avenue	1091 Branch Brook
H. WELLER	199 Washington Avenue	1394-W. Br. Brook
F. FEINOT	76 Belmont Avenue	291
C. MENK	106 Market Street	943-L. Br. Brook
H. F. QUINN	182 Bloomfield Avenue	84
ST. MICHAEL'S HOSPITAL	High Street	

## Clinics at City Dispensary.

### MEDICAL.

#### MALE AND FEMALE.

Every day excepting Sundays, at 9 A. M. District Physicians in attendance.

#### DISEASES OF SKIN

Tuesdays and Fridays at 9 30 A. M. —DR. H. J. F. WALLHAUSER.

#### GYNAECOLOGICAL.

Tuesdays and Fridays at 3 P. M. —DR. E. Z. HAWKES.

#### DISEASES OF CHILDREN

Mondays, Wednesdays and Fridays at 10 A. M. —DR. F. McEWEN.

#### GENITO-URINARY CLINIC

Tuesdays and Saturdays at 10 A. M. —DR. J. W. WILSON.

#### SURGICAL.

Daily at 12 M., except Saturday and Sunday —DR. L. WEISS.

#### DENTIST

Mondays, Wednesdays and Fridays at 1 P. M. —DR. W. M. GOULD.

#### THROAT AND NOSE.

Mondays and Thursdays at 3 P. M. —DR. H. A. TOWLE.

#### ORTHOPAEDIC

Mondays and Thursdays at 12 M. —DR. S. TWINCH.

**Annual Report**  
OF THE  
**HEALTH OFFICER**  
**FOR THE YEAR 1905.**



# ANNUAL REPORT

## OF THE

# HEALTH OFFICER

### FOR THE YEAR 1905.

*To the Honorable, the Board of Health of the City of Newark, New Jersey:*

GENTLEMEN I have the honor to herewith present to you my report of the workings of the various divisions of the Department of Public Health, together with a report of the Bacteriologist, Superintendent of the Bureau Contagious Diseases and Chemist of the Board, for the year ending December 31, 1905

#### SANITARY DIVISION.

The city is divided into seventeen districts patrolled by seventeen inspectors appointed by the Board. Each inspector is held responsible for the sanitary condition of his district.

#### CONSOLIDATED REPORT OF NUISANCES FOR THE YEAR 1905

Inspections from complaint book .....	3,213
Inspections from complaint book, verified . . . . .	2,720
Inspections from complaint book, no cause . . . . .	493
Number of original inspections made .....	12,674
Total Number of inspections made .....	15,887
Number of written notices served .....	2,455
Total number of abatements .....	3,356
Number of verbal notices served .....	6,311

Number of abatements from same . . . . .	5,213
Number of hours in court . . . . .	267½
Well water analyzed and examined . . . . .	16
Sewer connections ordered . . . . .	617
Sewer drains inspected . . . . .	1,781
Cesspools inspected . . . . .	166
Alleys inspected . . . . .	1,048
Alleys filthy . . . . .	137
Alleys need repairing . . . . .	49
Streets need cleaning . . . . .	140
Areas need cleaning . . . . .	715
Cellars need cleaning . . . . .	1,261
Ashes accumulation (yards and vacant lots) . . . . .	1,374
Garbage accumulation (yards and vacant lots) . . . . .	976
Drainage surface . . . . .	152
Vacant lots in an unsanitary condition . . . . .	370
Stagnant water on vacant lots . . . . .	142
Manure accumulation . . . . .	1,092
Defective water pipes . . . . .	541
Houses filthy . . . . .	43
Houses unfit for habitation . . . . .	21
Slaughter houses inspected . . . . .	43
Houses unprovided with P. V or W. C. . . . .	10
Houses with no water supply . . . . .	343
Houses with roofs leaking . . . . .	123
Hydrants in yard defective . . . . .	75
Privy houses filthy . . . . .	269
Privy vaults full . . . . .	509
Cesspools full . . . . .	201
Privy houses dilapidated . . . . .	54
Privy vaults ordered reconstructed . . . . .	52
Privy vaults ordered out . . . . .	705
Yards inspected . . . . .	15,277
Yards in an unsanitary condition . . . . .	1,975
Plumbing defective . . . . .	99
Water closets defective . . . . .	909
Stables inspected . . . . .	1,854
Total number of re-inspections . . . . .	10,632
Total number of nuisances found . . . . .	11,690
Number of cow-stables inspected . . . . .	220
Number of animals licensed . . . . .	1,020
Number of suit cases instituted for violation of Sanitary Code . . . . .	204
Number of cases in which penalties were imposed . . . . .	24

## BOARD OF HEALTH.

17

Number of cases discontinued upon payment of cost (nuisances abated) . . . . .	111
Number of cases discontinued (change in ownership).....	14
Number of cases discontinued prior to summonses being served (work having been done) .. . . .	55
Number of cases instituted by Milk, Food & Drug Inspector	22
Penalties imposed .....	22
Seventeen cases (milk being below the standard) three cases for selling milk without a license were instituted, and two cases were appealed	
Number of suit cases instituted by Meat Inspector . . .	3
Penalties imposed .....	2
One case was discontinued upon payment of costs, the same being satisfactorily adjusted	

## PLUMBING DIVISION.

This division consists of four practical plumbers and the following is a summary of the work performed by them during the year 1905

Plans approved .....	2,001
Plans rejected .....	168
Water tests made .....	1,664
Plumbing inspections made .....	4,259
Final plumbing inspections made . . . . .	1,026
Smoke tests made . . . . .	686
Peppermint tests made .. . . .	17
Sewer permits granted . . . . .	1,607
Cesspool permits granted . . . . .	58
Privy vault permits granted . . . . .	13
Manure permits granted . . . . .	6
Relay sewer permits granted . . . . .	92
Violations served .....	34
Violations rectified .....	14
Number of hours in court . . . . .	17

## MEAT AND LIVE STOCK DIVISION

This division consists of two inspectors; one a Veterinarian whose duty it is to look after slaughter-houses and wholesale meat markets, the other an experienced butcher, whose duty it is to visit all the public and private meat and vegetable markets.

The following is a summary of the work performed during the year 1905

## INSPECTED

Cattle	29,146
Calves	22,306
Sheep	39,807
Hogs	9,045
Total	100,364

## CONDEMNED

Calves	25
Carcasses of beef	8
Cows	1

Forty three car loads of calbages, strawberries and green onions at the Penn Freight yard

## BUTCHER SHOPS VISITED

Number of visits	8,720
Number of carcasses of beef inspected	28,190
Number of lambs and sheep	97,417
Number of calves	13,560
Number of hogs	14,090
Total	161,977

## CONDEMNED

Calves (carcasses)	122
Fish	50 lbs
Poultry	75 lbs

Ten complaints were attended to and adjusted.  
Centre Market has been visited daily

## DISINFECTING CORPS.

This division consists of a chief and six inspectors detailed for that purpose

The following is a summary of the work performed during the year 1905

## HOUSES QUARANTINED DURING THE YEAR

Diphtheria, including Membranous Croup (placarded) . . . .	1,510
Scarlet Fever (placarded) . . . . .	1,101
Total . . . . .	2,611
Typhoid Fever (not placarded) . . . . .	229
Cerebro Spinal Meningitis . . . . .	90
Total . . . . .	319

## DISINFECTIONS

Diphtheria . . . . .	1,510
Scarlet Fever . . . . .	1,101
Phthisis . . . . .	482
Cerebro Spinal Meningitis . . . . .	90
Special . . . . .	310
Total number of houses . . . . .	3,493
Total number of rooms . . . . .	9,800
Number of cubic feet of air space . . . . .	9,800,000
Number of control tests used . . . . .	1,853
Number of visits to houses under quarantine . . . . .	3,654
Number of nuisances found . . . . .	220
Number of funerals supervised . . . . .	90

## FOOD AND DRUG INSPECTOR'S REPORT

The following inspections of milk and food were made during the year 1905.

Number of wagons halted for inspection . . . . .	4,313
Number of cans of milk inspected on same . . . . .	6,422
Number of lactometer tests . . . . .	2,036
Number of stores visited . . . . .	389
Number of cans of milk inspected at same . . . . .	925

Number of lactometer tests .. .. .	245
Number of samples found suspicious and sent to the Chemist for analysis .....	445

In addition to the foregoing table several complaints were made of fruits, vegetables and canned goods, which were satisfactorily adjusted.

#### CITY DISPENSARY AND OUTDOOR POOR DIVISION

The following is a detailed statement of the services rendered by the different clinics, together with the treatment of what is known as the Outdoor Poor Contingent.

Persons treated at the following clinics:

Medical . . . . .	14,117
Surgical . . . . .	1,789
Diseases of the skin . . . . .	1,178
Diseases of children . . . . .	1,342
Diseases of women . . . . .	257
Diseases of genito-urinary organs . . . . .	1,314
Diseases of throat and nose . . . . .	128
Number of vaccinations . . . . .	8,243
Vaccine points delivered to Medical Inspectors of schools . . . . .	1,550
Number of teeth extracted . . . . .	1,444
Number of clinic prescriptions . . . . .	34,661

Number of district prescriptions dispensed as follows:

1st District . . . . .	600
2nd District . . . . .	642
3rd District . . . . .	689
4th District . . . . .	719
5th District . . . . .	741
6th District . . . . .	796
7th District . . . . .	400
8th District . . . . .	732
9th District . . . . .	179
10th District . . . . .	682
11th District . . . . .	388
Total number of district prescriptions . . . . .	6,018

#### RECAPITULATION

Total number of patients treated . . . . .	30,692
Total number of prescriptions dispensed . . . . .	40,579



## RECAPITULATION.

		Actual number of houses visited.	Actual number of families visited.	Sick prescribed for	Found treated by other physicians.	Total number of re-visits.	Number of patients sent to hospital.	Number of deaths.
1st District	.....	360	364	382	2	1089	19	6
2nd "	.....	221	235	235	2	568	7	4
3rd "	.....	379	382	397	1	860	61	6
4th "	.....	543	544	545	19	948	61	5
5th "	.....	327	366	431	9	915	56	4
6th "	.....	268	282	309	9	635	19	5
7th "	.....	265	274	296	34	671	23	8
8th "	.....	386	401	445	2	992	34	12
9th "	.....	64	65	70	5	287	12	0
10th "	.....	317	344	424	5	805	73	4
11th "	.....	189	193	221	0	546	14	7
Total . . .	.....	3319	3450	3755	88	8316	379	61

RECEIPTS AND DISBURSEMENTS OF THE BOARD OF  
HEALTH FOR THE YEAR ENDING DEC 31, 1905.

Balance on hand Jan. 1, 1905.....	\$ 2,243 83
Appropriated by Common Council (Tax Ordinance) .....	40,000 00
Appropriated by Common Council (Contingent Fund) .....	25,000 00
Penalties collected (Board of Health Cases) ..	1,600 33
Dead Animal Contract . . . . .	1,550 00
	<hr/> \$70,394 16

## OFFICE RECEIPTS

Filing Plans (Plumbing Division) .....	\$ 4,002 00
Milk Licenses .....	2,680 00
Sale of Tubercle and Sepsis Antitoxin .....	237 10
Sale of Diphtheria Antitoxin .....	1,310 20
Bacteriological Examinations .....	219 00
Scavenger Licenses .....	100 00
Scavenger Permits .....	22 70
Animals Permits .....	102 00
Ice Licenses .....	452 00
Ice Plates .....	114 75
Adams & Co. (Heating 2nd floor) .....	100 00
Chicken Slaughter House Permits .....	3 00
	<hr/> \$9,342 75
Total receipts .....	<hr/> \$79,736 91

## DISBURSEMENTS - SALARIES

## SANITARY DIVISION

Health Officer .....	\$ 4,500 00
Clerks (4) .....	4,630 04
Stenographer .....	900 00
Supt Bureau Contagious Diseases .....	2,000 00
Chief Disinfecting Corps .....	1,200 00
Chemist .....	1,500 00
Meat Inspectors (2) .....	2,900 00
Plumbing Inspectors (4) .....	5,043 55
Milk and Food Inspector .....	1,200 00
Sanitary Inspectors (24) .....	22,139 00

## BOARD OF HEALTH

Meteorologist	72 00
Janitor	552 33
Orderly at Isolation Hospital	712 26
	<hr/> \$47 349 18

## CITY DISPENSARY

City Apothecary	\$ 1,500 00
Assistant City Apothecary	1,200 00
Dentist	300 00
Janitor Service	201 50
	<hr/> \$3,201 50

## BACTERIOLOGICAL DIVISION

Bacteriologist	\$ 3,250 04
Assistant Bacteriologist	1,200 00
Second Assistant Bacteriologist (7 months)	350 00
Laboratory Assistant	900 00
Culture Collector (\$3 00 per diem)	1,095 00
	<hr/> \$6,795 04

## DISTRICT PHYSICIANS

Eleven at \$40 00 per month	\$ 5,280 00
	<hr/> \$5,280 00
Total	<hr/> \$62 625 72

DISBURSEMENTS  
SANITARY DIVISION

Office Rent	\$ 2,500 00
	<hr/> \$2 500 00

## LIGHT AND HEAT

Electric Light	\$ 194 34
Coal, Office	289 25
Coal, (Isolation Hospital)	49 50
	<hr/> \$533 11

## TELEPHONE SERVICE

Supt. Bureau Contagious Disease Residence	\$ 44 20
Health Officer's Residence	51 60
Isolation Hospital	90 50
Health Office	278 55
	<hr/> \$464 85

## BOARD OF HEALTH

25

## OFFICE FURNITURE

Waste Baskets . . . . .	\$ 2.25	
Picture Frames . . . . .	3.94	
Water Cooler . . . . .	6.75	
Office Chairs (2) . . . . .	11.40	
Rubber Mats . . . . .	11.25	
Rugs (6) . . . . .	26.50	
Linoeum . . . . .	206.40	
		\$268.49

## STABLE

Whip . . . . .	\$ 2.00	
Sponges . . . . .	1.25	
Blanket . . . . .	3.50	
Repairing Harness . . . . .	5.05	
Repairing Wagon . . . . .	5.75	
Rubber Tire . . . . .	7.75	
Horse Shoeing . . . . .	29.50	
Hay and Feed . . . . .	176.33	
		\$231.13

## REPAIRS

Office Desk . . . . .	\$ 1.00	
Ice Chest . . . . .	2.25	
Office Safe . . . . .	3.50	
Coal Vault (Lumber) . . . . .	5.74	
Electrical Work . . . . .	7.83	
Painting Stairway . . . . .	9.63	
Caning and Repairing Office Chairs . . . . .	14.40	
Painting Roof (Isolation Hospital) . . . . .	15.00	
Book Typewriter . . . . .	20.00	
Heater . . . . .	33.60	
Carpenter Work . . . . .	51.95	
Plumbing Work . . . . .	73.37	
		\$238.27

EXPENSES INCURRED BY MEMBERS OF THE BOARD  
ANNUAL CONVENTION A. P. H. ASSO. ETC

Chas. P. Zimmerman, (Cuba) . . . . .	\$ 190.00
Dr. R. N. Connolly, Bacteriologist (Cuba) . . . . .	170.00
Jas. R. Rutan, (Boston, Mass.) . . . . .	31.00
Dr. W. S. Disbrow, (Boston, Mass.) . . . . .	39.50
Dr. H. C. H. Herold, <i>President</i> , (Boston, Mass.) . . . . .	51.00

Chas. P. Zimmerman, (Boston, Mass.) .....	51 25
D. D. Chandler, <i>Health Officer</i> , (Boston, Mass.)	47 15
Dr. R. N. Connolly, <i>Bacteriologist</i> , (Boston, Mass.) .....	35 00
Herbert B. Baldwin, <i>Chemist</i> , (Boston, Mass.)	30 00
Dr. W. Runge, American Vet. Asso., Cleveland Ohio	83 50
Otto B. Schalk, Milk Inspector, N. J. Sanitary Association, Lakewood, N. J. ....	10 35
	\$738 75

## SUPPLIES

Rat traps	\$ 2 00
Elect. Batteries .	3 60
Lock and Keys .	4 75
Book, Treatise on Contagious Diseases	5 00
City Directory .....	6 00
Register of Physicians (Essex Co.) .	10 00
Rubber Stamps .	10 25
Transfer Cases .	10 50
Kerosene Oil (Mosquito Extermination) .	13 97
Uniform Buttons . . . . .	16 88
Hardware (Garden Implements, etc., Tacks, Tools)	20 39
Ice License Plates .....	27 50
Janitor Supplies (Mops, Brooms, Pails, Soap, etc.) .....	32 97
Smoke Machine and Brass Coupling	48 70
Milk License Plates .... .	72 25
Printing and Stationery	748 44
	<hr/> \$1,033 20

## MISCELLANEOUS

Cleaning Rugs . . . . .	\$ 2 40
Costs (Milk Case 2nd Dist. Court)	3 50
Inspectors Badges	4 75
Drilling Bottles	5 00
Toilet Paper	6 12
Removing and Replacing Awnings	6 50
Washing Towels ....	9 32
Flowers (Garden Bed) .	10 00
Commissioner's Badge	12 00

## BOARD OF HEALTH

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Draping Office Front . . . . .	15 00	
Board of Sanitary Inspector, Watershed . . . . .	17 00	
Ventilators, Office . . . . .	20 00	
Cleaning and Laying Carpets . . . . .	21 58	
Ice . . . . .	26 00	
Advertising Milk Ordinance . . . . .	30 75	
Floral Tributes . . . . .	35 00	
Insurance (Office Fixtures) . . . . .	48 48	
Engrossing Resolution (Dr. Zeh, deceased) . . . . .	50 00	
Carriage Hire . . . . .	65 00	
Water Rent (Isolation Hospital) . . . . .	104 96	
Meadow Inspector's Salary (Mosquito Extermination) . . . . .	274 50	
Resolution (Payment Physicians Reporting Contagious Diseases, 1902 and 1903) . . . . .	496 30	
	<hr/>	\$1,264 16

## INCIDENTALS

Carfare, Postage, Telegrams, Express, etc. . . . .	\$ 548 03	
	<hr/>	\$548 03

## CITY DISPENSARY

Mops . . . . .	\$ 1 38	
Carpenter Work . . . . .	5 19	
City Directory . . . . .	6 00	
Electrical Repairs . . . . .	6 42	
Towelng . . . . .	9 20	
Gas . . . . .	12 30	
Advertising Proposals . . . . .	18 30	
Washing Towels . . . . .	22 71	
Furniture . . . . .	25 75	
Awnings . . . . .	32 00	
Surgical Supplies . . . . .	32 63	
Ice . . . . .	36 68	
Plumbing Work . . . . .	38 10	
Insurance . . . . .	56 25	
Coal . . . . .	92 00	
Telephone Service . . . . .	93 90	
Stationery . . . . .	95 95	
Liquors . . . . .	143 85	
Vaccine . . . . .	610 00	
Drugs . . . . .	1,756 97	
	<hr/>	\$3,095 58

## BOARD OF HEALTH.

## DISINFECTING CORPS.

## DISINFECTANTS

Chloride Lime .	\$	4 00	
Wood Alcohol		11 50	
Carbolic Acid		37 00	
Formaldehyde		60 00	
		<hr/>	\$712 50

## STABLES

Repairing Horse Collar .	\$	75	
Repairing Wagon .		1 50	
Filing Horses's Teeth .		2 00	
Horse Shoeing		10 50	
Board of Horse		23 47	
		<hr/>	\$38 22

## MISCELLANEOUS

Gas Tubing	\$	64	
Funnels .		1 03	
Oil Cans .		1 25	
Cleaning Brushes		1 30	
Waste Basket		1 80	
Putty Knives		2 00	
Screw Drivers		2 16	
Paint and Brushes		4 22	
Repairing Regenerators		5 50	
Rubber Hose		6 25	
Kerosene Oil		6 50	
Printing and Stationery		10 50	
Cases for Regenerators		33 00	
Cotton Batting		33 76	
			\$130 00

## BACTERIOLOGICAL DIVISION

## SUPPLIES

Filter Tubes . . . . .	\$	6 00	
Chemicals . . . . .		25 95	
Purdy Centrifuge (Milk Exams) .		48 70	
Printing and Stationery		143 45	
Guinea Pigs		199 00	
Laboratory Supplies .		334 34	
		<hr/>	\$757 44

## STABLES

Horse Blankets.....	\$ 14.00	
Harness Supplies ....	41.05	
Insurance (Antitoxin Horses) .....	30.00	
Horse Shoeing .....	91.25	
Purchase of Horse . . . . .	175.00	
Board of Horses (5) .....	1,184.80	
		\$1,536.10

FITTING UP ROOM FOR BLEEDING HORSES  
AND BOTTLING ANTITOXIN.

Lumber . . . . .	\$ 21.39	
Hardware .....	24.40	
Electric Work .....	34.25	
Machinery .....	49.00	
Plumbing and Steam Fitting .....	207.73	
Mason Work . . . . .	224.00	
		\$560.77

## MISCELLANEOUS

Repairing Surgical Instruments .....	\$ 4.05	
Repairing Sterilizer .. . . .	34.50	
Salary (2nd Asst. Paid by res. 5 months).....	250.00	
Incidental Expenses, postage, etc. ....	160.52	
		\$449.07

## SPECIAL ANTITOXIN ACCOUNT

Horse Shoeing . . . . .	\$ 66.50	
Board of Horses (3) . . . . .	720.00	
		\$786.50

COST OF MAINTENANCE OF SMALL POX PATIENT AT  
ISOLATION HOSPITAL

JUNE 22 TO JULY 18, 1905

Electric Light .....	\$ 3.77	
Ice . . . . .	5.25	
Horse Shoeing .....	11.35	
Coal .....	12.00	
Groceries, meats, etc. . . . .	50.24	
Nurses Salary . . . . .	110.07	
Laundress . . . . .	30.00	
		\$222.68

## MOSQUITO EXTERMINATION.

Ditching Meadow Land	\$ 1,000 00	
	—	\$1,000 00
Grand Total .....		\$17 108 85

## STATEMENT—ASSETS

Balance on Hand Jan. 1, 1905 .	\$ 2,243 83	
Appropriated by Common Council .	65,000 00	
Penalties collected (Board of Health Cases)	1,600 33	
Dead Animal Contract . . . . .	1,550 00	
Office Receipts (Sanitary Division)	7,576 45	
Bacteriological Division (Antitoxin and Bacteri- ological Examinations.) . . . . .	1,766 30	
	—	\$79,736 91

## LIABILITIES SALARIES

Sanitary Division .	\$47,349 18	
Bacteriological Division	6,795 04	
City Dispensary	3,201 50	
District Physicians	5,280 00	
		\$62,625 72

## SUPPLIES, ETC

Sanitary Division	\$ 7,819 99	
City Dispensary .	3,095 58	
Disinfecting Corps	880 72	
Bacteriological Division	3 3 3 38	
Special Antitoxin Account	786 50	
Small Pox . . . . .	222 68	
Ditching Meadow Land	1,000 00	
	—	\$17,108 85
Total Liabilities		\$79,734 57
Balance on hand Jan. 1, 1906		2 34
		—
		\$79,736 91

## RECOMMENDATIONS OF HEALTH OFFICER.

I would respectfully urge that measures be taken under our system of Medical Inspection of Schools for the examination of eye and ear troubles in their incipency, especially as our common diseases such as Measles, Scarlet Fever and Diphtheria often leave catarrhal inflammation as a result, and a pupil may be considered mentally defective who has a physical difficulty which can be removed. This does not involve any elaborate teaching, but is carrying out the School Law of 1903 Article XXV II, that the Inspector shall instruct the teacher in "the recognized measures for the promotion of health and prevention of disease." Simple tests can easily be devised and an annual examination and record be made a basis. These tests should bring out the following facts:

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Do the eyes and head habitually grow weary after study?
3. Can he read the test types at 20 feet distance?
4. Does pupil suffer from earache or discharge from either ear?
5. Does pupil fail to hear ordinary voice at distance 20 feet or tick of watch at 3 feet?
6. Does the pupil habitually breathe through the mouth, or fail to breathe properly through either nostril?

Experience with the school children teaches us that many of them are only too eager to learn and may over exert themselves, and that on the other hand a child credited as dull through physical defect, should be so helped as to be placed on a level with his fellows.

I would respectfully call attention to the large number of deaths occurring in the hospitals and institutions of this city. These deaths amount to 25 per cent of our total

mortality. The City Hospital supported by annual appropriation cared for 4,824 patients in 1905. Its capacity, excluding the Contagious Disease Annex, is 275 beds, and these hold an average of 204 patients. It is evident that we are approaching the limit of its capacity. Besides the City Hospital we have at our command 84 beds in Hospitals and Institutions, the City contributing to the support of these the sum of \$21,000 annually. No doubt some of these, such as St. Michael's, take fully their share of these city patients. Yet it appears to me, that at present there exists no fixed method of ascertaining whether all these institutions perform their share of city work.

The amount appropriated for these Hospitals and Institutions is steadily growing, as the following figures show. Appropriation for Hospitals for 10 years, 1886-95, \$90,000. Appropriation for Hospitals for 10 years, 1896-1905, \$152,000.

To the extent of the City patients in these Hospitals and Institutions there should be the same supervising methods as are employed for the City Hospital. I therefore recommend that some Department of the City should have accurate knowledge of the daily or weekly number of City patients in these Hospitals and Institutions, and the time spent by these City patients in these Hospitals and Institutions, to the end that we may receive the full service for such appropriation, and that a proper accountability for its expenditure be insured.

Our City Dispensary needs better quarters and accommodations. Questions have been raised in regard to its present situation over Centre Market. It needs better facilities to conduct its clinics. There is a growing demand for the establishment of a Tuberculosis Clinic, but there exists no sufficient space to conduct it.

I suggest that a central location be chosen and that an Emergency Station be established containing one or more

beds to meet contingencies arising from accidental cases. Along with this might be considered the propriety of revising the present Ambulance System of the City, placing this entire system under one general head, so that Hospital cases may be properly distributed and duly accounted for. As matters stand now, the Hospital distribution of City beds is a divided responsibility.

### VACCINATION.

It will be seen that the vaccinations at the City Dispensary are much above the average. This is due in part to the fact that the new Rules of the Board of Education have forced a more thorough vaccination of our Public School Children. We have questioned the practice of accepting physicians' certificates. Cases said to have been unfit have been vaccinated. Trivial causes have been assigned to avoid compliance with the rule, and parents should not be allowed to influence physicians' judgment, for the claim of immunity to vaccination is too often made. Experience proves that this immunity can be made to yield to repeated trials. Immunity to vaccination does not necessarily mean immunity to Small Pox, and immunity to vaccination is much more rare than is commonly claimed. A false certificate gives inevitably a false security and is sure to hurt the practice. All our law needs is a thorough enforcement without fear or favor, and the proof of its efficiency is shown in the exemption of our Public Schools from Small Pox. We have been efficiently aided by the Truant Officer and the Courts have upheld him. We have no use for political influence when exerted against the security and health of our school children.



## REPORT OF THE DIVISION OF BACTERIOLOGY.

*To Mr. D. D. Chandler, Health Officer:*

DEAR SIR: Herewith is respectfully submitted the annual report of the Bacteriological Division for the year ending December 31, 1905.

There have been some useful and necessary improvements in the laboratory during the year, the most important of which is a room that has been fitted up especially for the manufacture of Antitoxin. This enables us to bleed the horses and bottle the serum under conditions that compare favorably with a modern operating room, and helps to insure the asepsis, which is absolutely necessary in Antitoxin production.

Another addition to the laboratory equipment is an outfit for bacteriological examinations of milk, which we trust will prove its usefulness before the closing year is ended.

The routine work of this division shows a gratifying increase in the amount performed each year, and the following table indicates to what extent the Medical Profession of Newark takes advantage of the facilities afforded by the laboratory of the Board of Health.

# LABORATORY RECORD FOR 1905.

DIPHTHERIA EXAMINATIONS.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Primary Cultures	309	300	341	279	298	295	138	182	153	258	286	378	3127
True Cases	107	91	121	98	57	75	64	63	80	110	112	134	1172
Total No. of Cultures	623	517	514	498	717	374	295	296	295	443	416	625	7512
DIPHTHERIA ANTITOXIN.													
No. of Vials Produced	408	280	387	443	560	412	0	372	495	710	443	704	5104
" " Distributed	390	306	329	458	557	391	180	232	397	474	377	604	5383
SEPSIS ANTITOXIN.													
No. of Vials Produced	390	564	0	0	37	0	306	0	304	0	0	0	1939
" " Distributed	484	260	190	148	149	226	163	55	114	83	68	154	2094
TUBERCLE ANTITOXIN.													
No. of Vials Produced	0	235	265	0	0	267	0	143	0	0	0	246	1156
" " Distributed	107	116	262	125	107	142	83	45	24	80	27	36	1154
SPUTUM EXAMINATIONS.													
Tubercle Bacilli Found	66	64	71	72	64	76	63	60	56	67	44	50	753
" " Not Found	84	84	106	77	118	76	63	67	71	83	110	182	1021
Total No. of Specimens	150	148	177	149	182	152	126	127	127	150	154	132	1774
BLOOD EXAMINATIONS.													
Blood Examinations	44	32	55	76	56	63	57	79	85	66	68	59	740
Water Examinations	3	12	13	25	12	15	42	33	10	20	10	8	203
Disinfection Tests	0	0	242	224	358	250	130	101	99	141	152	166	1863

## DIPHTHERIA.

The total mortality from diphtheria during 1905 is lower than it has been in Newark for some years. The fact that over 86 per cent of all the cases reported last year in the city were injected with the antitoxin made by the Board, and over 300 persons were immunized with the serum may have been a factor in reducing the death rate from this disease.

The following table indicates the results obtained with the antitoxin treatment for diphtheria in Newark during the last eleven years, and contrasts the results of treatment without this remedy.

## ANTITOXIN USED

YEAR	CASES	DEATHS.	PERCENTAGE
1895	384	52	12
1896	905	106	12
1897	563	61	11
1898	646	68	10
1899	798	70	8
1900	987	80	8
1901	956	58	6
1902	775	61	7
1903	953	71	7
1904	1399	95	6.7 10
1905	1421	87	5.7 10

## ANTITOXIN NOT USED

YEAR	CASES	DEATHS	PERCENTAGE
1895	937	221	23
1896	356	112	31
1897	407	76	18
1898	473	65	17
1899	372	54	14
1900	430	63	14
1901	198	45	22
1902	210	44	19
1903	197	19	25
1904	254	55	21 6-10
1905	103	28	14 5-10

## TUBERCULOSIS.

The following table gives the number of specimens examined for tubercle bacilli during the last eight years. Card records of all these cases are preserved and these cards really constitute a registration of the cases, which while purely voluntary so far as the physician is concerned, yet enables the Board of Health to obtain the personal and family history of the case in a manner that causes no hardship to the patient. The name, address, age, sex, occupation, duration of disease, together with data regarding other cases of consumption in the family are given by the physician, and in cases where we find tubercle bacilli in the discharges examined, the doctor is advised that the Health Officer will have the family instructed by an inspector, regarding methods of cleansing the apartments and how to observe general prophylaxis, if the family physician desires.

## SPUTA EXAMINATIONS FOR TUBERCLE BACILLI

YEAR.	POSITIVE.	NEGATIVE.	TOTAL.
1898	312	378	690
1899	308	491	799
1900	380	623	1 003
1901	366	594	960
1902	796	746	1,542
1903	1 030	1,041	2,071
1904	804	959	1,763
1905	.... 753	1,021	1 774

The following report was prepared from the laboratory records by Dr. Thos. H. Ripley, the Assistant Bacteriologist to the Board.

*To the Bacteriologist:*

DEAR SIR: The number of examinations made at the laboratory of sputa from suspected cases of tuberculosis during the year 1905 was 1774, of which 753 contained "tubercle bacilli." The physicians for whom the examinations

were made furnished data regarding the sex and age of 550 cases in which "tubercle bacilli" were found; 330 of these were male and 220 female.

The following table shows the sex and time of life in which the disease occurs:

AGE	MALE	FEMALE
1 to 10	0	0
10 " 20	36	24
20 " 30	120	79
30 " 40	108	71
40 " 50	42	27
50 " 60	15	11
60 and over	9	7
	330	220

The above table shows that it is between the ages of 20 and 40, the most useful and active period of life, that the greatest number of cases occur.

The limited data furnished by the physicians shows that in the 550 cases examined, 118 or over 21 per cent had consumption in the immediate family. Direct infection may have taken place in this way.

The following tables have been prepared from the laboratory records of examinations made in the past seven (7) years, so far as the physicians have furnished *positive* data, to show the distribution of tuberculosis in the city.

Number of streets in which cases occurred.	392
Number of houses in which cases occurred . . . . .	2,085

It will be seen from an examination of the table which follows, that over 61 per cent of the dwellings affected show evidence of infection by a reputation of tuberculosis in years subsequent to the first case examined.

Houses.	STREETS	Year in which cases occurred.							Total Cases
		1899	1900	1901	1902	1903	1904	1905	
1	Ann st		1			1			2
1	Academy st.					1		1	2
1	" " }					1		1	2
1	" " }					1		1	2
1	Astor st		1	1					2
1	Barclay st. }	1			1				2
1	" " }			1	1				2
1	Bergen st. }		1			1			2
1	" " }		1	1			1		3
1	" " }				1	1			2
1	" " }					1	1		2
1	Boston st	1					1		2
1	Broad st						1	1	2
1	Broome st.	1					1	1	3
1	" " }		1	1					2
1	" " }			1	1	1			3
1	Bruce st.		1		1				2
1	" " }						2		2
1	" " }							2	2
1	Belleville ave.						2	1	3
1	Bermont ave			1	1		1	1	4
1	Brill st		1	1					2
1	Baldwin st.		1					1	2
1	Brentnall pl	1	1						2
1	Clay st							2	2
1	Congress st				1		1		2
1	Cutler st						1	1	2
1	Court st	1	1						2
1	Clifton ave				1	1			2
1	Canfield pl.						1	1	2
1	Central ave	1				1			2
1	Chestnut st. . .			1				1	2
1	Camden st. }		1					1	2
1	" " }					1	1		2
1	Drift st. }						1		1
1	" " }						2		2
1	Duryea st			1	1				2
1	Edgtr ave		1			1			2
1	Elm st }				1		1	1	3
1	" " }						1	1	2
1	Falmout ave					1	1		2
1	Freeman st	1			1				2
1	Ferry st		1	1		1			3
1	" " }		1		1				2
1	" " }			1		1			2
1	" " }				2				2

## BOARD OF HEALTH

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Houses	STREETS	Year in which cases occurred.							Total cases.
		1899	1900	1901	1902	1903	1904	1905	
1	Fifteenth ave. . .	1			1				2
1	Frelinghuysen ave						1	1	2
1	Fairview ave							2	2
1	Gould ave.								2
1	Garside st. . .	1		1					2
1	" " . .				1	1			2
1	" " . .					1		1	2
1	" " . .						1	1	2
1	" " . .						1	1	2
1	Hamburg pl	1			1				2
1	Howard st. .							2	2
1	Hunterdon st		1		1	2			4
1	" " . .			1		1			2
1	" " . .				1	2			3
1	" " . .					1	1		2
1	Holland st. .		1		1				2
1	Humboldt st	1						1	2
1	Houston st. .				2				2
1	Jones st		1					1	2
1	Lillie st. . .			1			1		2
1	Livingston st. { 3	1	1						2
1	" " " {			1				1	2
1	" " " {					1		1	2
1	Littleton ave.							2	2
1	McWhorter st.	1					1		2
1	Munroe st						1	1	2
1	Madison st. .							2	2
1	Magazine st	1				1			2
1	Mercer st					1		1	2
1	Morris ave. { 2		1					1	2
1	" " " {						1	2	3
1	Mulberry st. { 2	1	1						2
1	" " " {						1	2	3
1	Mt. Prospect ave { 3			1		1			2
1	" " " " {					1	1	1	3
1	" " " " {						1	1	2
1	Market st. .						1	1	2
1	Nelson pl . . .					1	1		2
1	North 4th st .					1	1		2
1	Newark st. { 2					2			2
1	" " " {						1	1	2
1	Newton st. { 2			1	1				2
1	" " " {						1	1	2
1	North 6th st .						1	1	2
1	Orleans st . .		1				1		2
1	Prince st. { 2								2
1	" " " {		1	1					2

Houses	STREETS.	Year in which cases occurred.						Total Cases
		1899	1900	1901	1902	1903	1904	1905
1	Prince st 2..				1	..	..	1
1	Pennington st ..						1	1
1	Pennsylvania ave	1			..		1	..
1	Passaic ave							2
1	Prospect st.					2		..
1	Rankin st ....		..				2	..
1	Rutgers st. } 2	1			..			1
1	" " " }							2
1	River st. } 2						1	1
1	" " " }							2
1	Rose st .....				1	1	..	..
1	Roseville ave. } 2	1	1					..
1	" " " }							2
1	Second st ...					1	1	..
1	South 14th st					1	1	..
1	Spruce st		1		1			1
1	Seventeenth ave				1		1	..
1	South 16th st		..		1	..	1	..
1	South 19th st. } 2			1	1	1	..	..
1	" " " }						1	1
1	South Orange ave.....	1			..	1	1	..
1	Springfield ave. } 2			1				1
1	" " " }						1	1
1	South Canal st. .				..	1	1	..
1	Sixth ave					1	1	..
1	State st ..				1		1	..
1	South 10th st	1					1	..
1	Summer ave			1				1
1	Seventh ave. } 2				1			1
1	" " " }							2
1	Somerset st.			1	1	..		..
1	Thirteenth ave				1	..	1	..
1	Union st.			..		1	1	..
1	Vanderpool st ..				1	1		..
1	Walnut st		1				1	..
1	Wickliffe st....				1	1	..	..
1	Waverly ave. } 3			..	1	1	..	..
1	" " " }				1			1
1	" " " }					1	1	..
1	William st			1	..		1	..
1	Webster st....					1		1
1	Wakeman ave			..	1	1		..
1	Wallace st. .				1		1	..
1	West st .....			..			1	1
1	Washington st. } 2			1	1	1	1	..
1	" " " }						1	1
139		21	27	25	40	49	63	73
								298

It was noticed in going over the records that a house which has had a case of consumption in it, will be apt to have another within a few years, and may have a number in close succession; also that approximate houses are considerably exposed to the contagion, so that it appears in groups in different localities. While density of population and filth attract the disease, it also appears in the more thinly populated and cleanly sections of the city, showing the highly infectious character of tuberculosis.

Very respectfully,

DR. THOS. H. RIPLEY,

*Asst. Bacteriologist*

#### THE CITY WATER SUPPLY.

The bacterial purity of Newark's Water Supply has maintained a high standard during the year and with the completion of Cedar Grove Reservoir there is every reason to believe that the danger of future pollution is very materially lessened if not entirely eliminated.

The following tables give the results of the bacteriological examinations made during 1905.

# BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK WATER DURING 1905. 11

DATE 1905.	ORIGIN OF SAMPLE.	Bact per C. C.	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			2.	1 <sub>0</sub>	$\frac{1}{2}$	1	1 C. C.	5 C. C.
Jan 31	Laboratory Faucet, City Hospital...	40	—	—	—	—	—	—
Feb 25	Oak Ridge Stream, above Clinton Stream	200	—	—	—	—	—	+
" "	Kanouse Creek, above Pequannock River	170	—	—	—	—	—	—
" "	Echo Lake Stream, above Pequannock River	30	—	—	—	—	—	—
" "	Macopin Intake, inside Gatehouse	40	—	—	—	—	—	+
" "	Belleville Reservoir, outside Gatehouse	20	—	—	—	—	—	—
" "	Belleville Reservoir, inside Gatehouse	20	—	—	—	—	—	—
" "	Board of Health Office, 880 Broad Street	30	—	—	—	—	—	—
" "	Laboratory Faucet, City Hospital...	10	—	—	—	—	—	—
Mar 28	Oak Ridge Stream, above Clinton Stream.	1130	—	—	—	—	+	+
" "	Clinton Stream, above Oak Ridge Stream.	420	—	—	—	+	+	+
" "	Kanouse Creek, above Pequannock River	1750	—	—	+	+	+	+
" "	Echo Lake Stream, above Pequannock River.	870	—	—	—	+	+	+
" "	Macopin Intake, inside Gatehouse ....	1690	—	—	—	+	+	+
" "	Belleville Reservoir, outside Gatehouse.	290	—	—	—	+	+	+
" "	Belleville Reservoir, inside Gatehouse	370	—	—	—	—	—	—
" "	Board of Health Office, 880 Broad Street..	190	—	—	—	+	+	+
" "	Laboratory Faucet, City Hospital...	210	—	—	—	+	+	+
Apr 12	Oak Ridge Stream, above Clinton Stream .	270	—	+	+	+	+	+
" "	Clinton Stream, above Oak Ridge Stream. .	320	—	—	—	+	+	+
" "	Kanouse Creek, above Pequannock River	380	—	+	+	+	+	+
" "	Echo Lake Stream, above Pequannock River.	310	—	—	+	+	+	+
" "	Macopin Intake, inside Gatehouse. .	360	—	—	—	+	+	+
" "	Belleville Reservoir, inside Gatehouse .	260	—	—	+	+	+	+
" "	Belleville Reservoir, outside Gatehouse	420	—	—	—	+	+	+

BOARD OF HEALTH

# EXAMINATION OF PEQUANNOCK WATER DURING 1905. CONTINUED

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C. C.	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{5}{1}$
Apr 12	Board of Health Office, 880 Broad Street	130						
" "	Laboratory Faucet, City Hospital	120						
Apr. 25.	Oak Ridge Stream, above Clinton Stream	590						
" "	Clinton Stream, above Oak Ridge Stream	500						
" "	Kanouse Creek, above Pequannock River	670						
" "	Echo Lake Stream, above Pequannock River	370						
" "	Macopin Intake, inside Gatehouse	1170						
" "	Belleville Reservoir, inside Gatehouse	440						
" "	Belleville Reservoir, outside Gatehouse	550						
" "	Board of Health Office, 880 Broad Street	130						
" "	Laboratory Faucet, City Hospital	60						
May 10.	Oak Ridge Stream, above Clinton Stream	640						
" "	Clinton Stream, above Oak Ridge Stream	870						
" "	Kanouse Creek, above Pequannock River	730						
" "	Echo Lake Stream, above Pequannock River	860						
" "	Macopin Intake, inside Gatehouse	820						
" "	Belleville Reservoir, inside Gatehouse	200						
" "	Belleville Reservoir, outside Gatehouse	180						
" "	Board of Health Office, 880 Broad Street	60						
" "	Laboratory Faucet, City Hospital	120						
June 14.	Oak Ridge Stream, above Clinton Stream	1130						
" "	Clinton Stream, above Oak Ridge Stream	940						
" "	Kanouse Creek, above Pequannock River	1430						
" "	Echo Lake Stream, above Pequannock River	1060						
" "	Macopin Intake, outside Gatehouse	1100						

## EXAMINATION OF PEQUANNOCK WATER DURING 1905. CONTINUED.

15

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C. C.	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			1	2	3	4	5	6
June 14	Macopin Intake, inside Gatehouse	1260	+	+	+	+	+	+
" "	Belleville Reservoir, outside Gatehouse	540						
" "	Belleville Reservoir, inside Gatehouse	580	—	+	+	+	+	+
" "	Board of Health Office, 880 Broad Street	160						
" "	Laboratory Faucet, City Hospital	70						
July 1	Oak Ridge Stream, above Clinton Stream	1200						
" "	Clinton Stream, above Oak Ridge Stream	970	+	+	+	+	+	+
" "	Kanouse Creek, above Pequannock River	1560	+	+	+	+	+	+
" "	Echo Lake Stream, above Pequannock River	1230	+	+	+	+	+	+
" "	Macopin Intake, outside Gatehouse	1140	+	+	+	+	+	+
" "	Macopin Intake, inside Gatehouse	1180						
" "	Belleville Reservoir, outside Gatehouse	530		+	+	+	+	+
" "	Belleville Reservoir, inside Gatehouse	600	+		+	+	+	+
" "	Board of Health Office, 880 Broad Street	120						
" "	Laboratory Faucet, City Hospital	80						
July 12	Oak Ridge Stream, above Clinton Stream	3600		+	+	+	+	+
" "	Clinton Stream, above Oak Ridge Stream	2500	—		+	+	+	+
" "	Kanouse Creek, above Pequannock River	2700			+	+	+	+
" "	Echo Lake Stream, above Pequannock River	1460	—		+	+	+	+
" "	Macopin Intake, outside Gatehouse	1170	+	+	+	+	+	+
" "	Macopin Intake, inside Gatehouse	1230	—	+	+	+	+	+
" "	Belleville Reservoir, outside Gatehouse	940			+	+	+	+
" "	Belleville Reservoir, inside Gatehouse	1300		+	+	+	+	+
" "	Board of Health Office, 880 Broad Street	260				+	+	+
" "	Laboratory Faucet, City Hospital	170	—			+	+	+

REPORT OF HEALTH

# EXAMINATION OF PEQUANNOCK WATER DURING 1905. CONTINUED.

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C. C.	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{2}$	5
July 19.	Oak Ridge Stream, above Clinton Stream.	7					+	+
" "	Clinton Stream, above Oak Ridge Stream	5100	—	—	—	—	+	+
" "	Kanouse Creek, above Pequannock River	2240	—	+	+	—	+	+
" "	Echo Lake Stream, above Pequannock River	1680	—	—	—	—	+	+
" "	Macopin Intake, outside Gatehouse	560	—	—	—	—	+	+
" "	Macopin Intake, inside Gatehouse	2720	—	—	—	—	+	+
" "	Belleville Reservoir, outside Gatehouse.	4840	—	—	—	—	+	+
" "	Belleville Reservoir, inside Gatehouse	1400	—	—	—	—	+	+
" "	Board of Health Office, 880 Broad Street	40	—	—	—	—	+	+
" "	Laboratory Faucet, City Hospital	220	—	—	—	—	+	+
July 26.	Cedar Grove Reservoir, West Shore, opp. Inlet	370	—	—	+	+	+	+
" "	Cedar Grove Reservoir, at Inlet Gate	280	+	+	+	+	+	+
" "	Cedar Grove Reservoir, South-west Corner	150	+	+	+	+	+	+
" "	Cedar Grove Reservoir, North-west Corner (Reservoir was being flooded for the first time.)	90	+	+	+	+	+	+
Aug. 3	Cedar Grove Reservoir, West Shore, opp. Inlet	190	—	—	—	+	+	+
" "	Cedar Grove Reservoir, at Outlet Gate.....	160	—	—	—	—	+	+
" "	Cedar Grove Reservoir, South-west Corner.	280	—	+	+	+	+	+
" "	Cedar Grove Reservoir, Northwest Corner	140	—	—	—	—	+	+
" "	Laboratory Faucet, City Hospital.....	90	—	—	—	—	—	+
Aug. 9.	Oak Ridge Stream, above Clinton Stream	1230	—	+	+	+	+	+
" "	Clinton Stream, above Oak Ridge Stream	1470	—	+	+	+	+	+
" "	Kanouse Creek, above Pequannock River	1630	+	+	+	+	+	+
" "	Echo Lake Stream, above Pequannock River	1370	—	+	+	—	+	+
" "	Macopin Intake, outside Gatehouse .....	1110	—	+	+	+	+	+

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## EXAMINATION OF PEQUANNOCK WATER DURING 1905. CONTINUED.

7

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C. C.	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			2"	1"	1/2"	1/4"	1 C. C.	1 C. C.
Aug. 9.	Macopin Intake, inside Gatehouse ..	1230	—	+	+	+	+	
" "	Belleville Reservoir, outside Gatehouse ..	730	—	+	+	+	+	
" "	Belleville Reservoir, inside Gatehouse ..	790	—	+	+	+	+	
" "	Board of Health Office, 880 Broad Street ..	160	—	—	+	+	+	
" "	Laboratory Faucet, City Hospital .. . . . .	80		—			+	
Aug. 25	Oak Ridge Stream, above Clinton Stream ..	1290	+	+	+	+	+	
" "	Clinton Stream, above Oak Ridge Stream .. .	900	+	+	+	+	+	
" "	Kanouse Creek, above Pequannock River .. .	3300	+	+	+	+	+	
" "	Echo Lake Stream, above Pequannock River ..	2650	—	+	+		+	
" "	Macopin Intake, outside Gatehouse .. . . .	1750	+	+	+		+	
" "	Macopin Intake, inside Gatehouse .. . . .	1900	+	+	+		+	
" "	Belleville Reservoir, outside Gatehouse ..	940	+	+	+		+	
" "	Belleville Reservoir, inside Gatehouse ..	830	+	+	+		+	
" "	Board of Health Office, 880 Broad Street .. .	90	—		—	+	+	
" "	Laboratory Faucet, City Hospital .. . . .	110		—			+	
Sept 5.	Oak Ridge Stream, above Clinton Stream ..	1320	+	+	+	+	+	
" "	Clinton Stream, above Oak Ridge Stream ..	1060	+	+	+	+	+	
" "	Kanouse Creek, above Pequannock River .. .	1670	+	+	+	+	+	
" "	Echo Lake Stream, above Pequannock River ..	1490		+	+	+	+	
" "	Macopin Intake, outside Gatehouse .. . . .	980	—	+	+	+	+	
" "	Macopin Intake, inside Gatehouse .. . . .	1130	+	+	+		+	
" "	Belleville Reservoir, outside Gatehouse ..	760	+	+	+		+	
" "	Belleville Reservoir, inside Gatehouse ..	630		+	+		+	
" "	Board of Health Office, 880 Broad Street ..	110		—	—		+	
" "	Laboratory Faucet, City Hospital .. . . .	70		—			+	

BOARD OF HEALTH.

# EXAMINATION OF PEQUANNOCK WATER DURING 1905. CONTINUED.

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C C	Amount of Water Causing Fermenta- tion in 5 C. C. Glucose Bouillon.					
			10	10	1	1	1 C.	5 C.
Oct. 11.	Oak Ridge Stream, above Clinton Stream.	1460	—	—	—	+	—	+
" "	Clinton Stream, above Oak Ridge Stream.	1590	+	+	+	+	—	+
" "	Kanouse Creek, above Pequannock River	1730	+	+	+	+	—	—
" "	Echo Lake Stream, above Pequannock River	1260	—	—	—	+	—	—
" "	Macopin Intake, outside Gatehouse	930	+	+	+	+	—	+
" "	Macopin Intake, inside Gatehouse..	1050	+	+	+	+	—	+
" "	Belleville Reservoir, outside Gatehouse.	780	+	+	+	+	—	—
" "	Belleville Reservoir, inside Gatehouse	970	+	+	+	+	—	—
" "	Board of Health Office, 880 Broad Street	160	—	—	—	—	—	—
" "	Laboratory Faucet, City Hospital .....	90	—	—	—	—	—	—
Oct. 25.	Oak Ridge Stream, above Clinton Stream	730	—	—	+	+	—	—
" "	Clinton Stream, above Oak Ridge Stream.	990	—	+	+	+	—	—
" "	Kanouse Creek, above Pequannock River.	1040	—	—	+	+	—	—
" "	Echo Lake Stream, above Pequannock River .	1130	—	+	+	+	—	—
" "	Macopin Intake, outside Gatehouse .	960	—	+	+	+	—	—
" "	Macopin Intake, inside Gatehouse . . .	1080	+	+	+	+	—	—
" "	Belleville Reservoir, outside Gatehouse.	730	—	+	+	+	—	—
" "	Belleville Reservoir, inside Gatehouse	650	—	—	+	+	—	—
" "	Board of Health Office, 880 Broad Street	90	—	—	—	—	—	—
" "	Laboratory Faucet, City Hospital.	80	—	—	—	—	—	—
Nov 21.	Oak Ridge Stream, above Clinton Stream	580	—	—	—	+	—	—
" "	Clinton Stream, above Oak Ridge Stream	770	—	—	—	+	—	—
" "	Kanouse Creek, above Pequannock River . .	930	—	+	+	+	—	—
" "	Echo Lake Stream, above Pequannock River .	670	—	—	—	—	—	—
" "	Macopin Intake, outside Gatehouse .	720	—	—	—	+	—	—

# EXAMINATION OF PEQUANNOCK WATER DURING 1905.—CONTINUED.

57

DATE 1905.	ORIGIN OF SAMPLE.	Bact. per C. C.	Amount of Water Causing Fermentation in 5 C. C. Glucose Bouillon.					
			$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{1}$ C. C.	$\frac{5}{1}$ C. C.
Nov 21	Macopin Intake, inside Gatehouse	790				+	+	+
" "	Belleville Reservoir, outside Gatehouse	810			-	+	+	+
" "	Belleville Reservoir, inside Gatehouse	530		+		+		+
" "	Board of Health Office, 880 Broad Street	60				+		+
" "	Laboratory Faucet, City Hospital	30				+		+
Dec 15	Oak Ridge Stream, above Clinton Stream	430		+	+		-	
" "	Echo Lake Stream, above Pequannock River	370				+		+
" "	Macopin Intake, inside Gatehouse	320		+		+		+
" "	Cedar Grove Reservoir, at Inlet Gatehouse	250		+	+	+	+	+
" "	Cedar Grove Reservoir, at Outlet Gatehouse	210				+	+	+
" "	Board of Health Office, 880 Broad Street	60				+	+	+
" "	Laboratory Faucet, City Hospital	35			-			+

BOARD OF HEALTH

# AVERAGE NUMBER OF BACTERIA FROM MACOPIN INTAKE TO CITY FAUCETS.

For 1905 ...	Macopin Intake . . . . .	1080 Bacteria per ( C.
" " . . . .	Belleville Reservoir . . . . .	778 " " "
" " . . . .	Cedar Grove Reservoir Inlet . . . . .	270 " " "
" " . . . .	Cedar Grove Reservoir Outlet . . . . .	216 " " "
" " . . . .	Board of Health Office, 880 Broad St . . . . .	115 " " "
" " . . . .	Laboratory Faucet, City Hospital . . . . .	95 " " "

Very respectfully,

R. N. CONNOLLY, M. D.,

Bacteriologist.



## REPORT OF SUPERINTENDENT BUREAU OF CONTAGIOUS DISEASES.

*I David D. Chandler, Health Officer.*

DEAR SIR: I have the honor to present the following report of the Bureau Contagious Diseases for the year 1905

### OUR POPULATION.

The State Census fixes our population at 283,289, for 1905. There are 140,080 males and 143,209 females. There are 37,263 houses, 55,341 families, 3,164 are colored, 198,749 are American born.

The population is distributed into fifteen wards, as follows:

WARD.	POPULATION
1 . . . . .	12,831
2 . . . . .	13,647
3 . . . . .	22,959
4 . . . . .	11,455
5 . . . . .	15,321
6 . . . . .	25,760
7 . . . . .	13,897
8 . . . . .	15,307
9 . . . . .	14,863
10 . . . . .	20,829
11 . . . . .	21,518
12 . . . . .	17,853
13 . . . . .	29,390
14 . . . . .	29,422
15 . . . . .	18,237
	—
	283,289

## THE DEATH RATE.

The death rate for 1905 is fixed at 17.74 per thousand, there being 5,025 deaths. This is the lowest death rate since 1897.

The following table compares these rates beginning with 1894:

YEAR.	POPULATION	NO. OF DEATHS.	DEATH RATE
1894	203,923	4,543	22.28
1895	215,725	4,616	21.37
1896	225,000	4,716	20.96
1897	230,000	4,010	17.43
1898	235,000	4,303	18.30
1899	240,000	3,537	18.90
1900	246,070	5,006	20.34
1901	250,000	4,806	19.22
1902	255,000	4,943	19.38
1903	266,000	4,923	18.50
1904	272,000	5,378	19.77
1905	283,289	5,025	17.74

## SCARLET FEVER.

During the year 1905 we had reported 1,309 cases and 45 deaths, a death rate of 3.4-10 per cent. Comparing with the previous years, we have,

YEAR.	CASES	DEATHS
1894	1,145	69
1895	623	35
1896	537	17
1897	1,358	54
1898	478	15
1899	607	34
1900	708	55
1901	643	23
1902	557	46
1903	779	71
1904	1,649	120
1905	1,309	45

Average mortality for 12 years, 5.6-10 per cent

## REPORTED CASES AND DEATHS BY MONTHS

MONTH	CASES	DEATHS
January	170	5
February	142	6
March	175	11
April	262	5
May	188	6
June	80	9
July	42	0
August	37	3
September	29	0
October	40	0
November	57	0
December	77	0
Total	1,309	45

## TYPHOID FEVER.

During 1905 we had reported 228 cases and 40 deaths, a mortality of 17.5 to per cent. Comparing previous years we have,

YEAR	CASES	DEATHS
1894	89	34
1895	149	50
1896	106	47
1897	103	33
1898	179	41
1899	515	66
1900	320	50
1901	316	57
1902	259	47
1903	306	63
1904	210	40
1905	228	40

Average mortality for 12 years 20.4 to per cent. The deaths in 1905 from Typhoid Fever are 14 to the 100,000 of our population.

## TOTAL FEAR CASES AND DEATHS BY MONTHS

MONTH	CASES	DEATHS
January	14	1
February	7	2
March	8	3
April	10	2
May	7	0
June	21	7
July	15	2
August	23	4
September	39	2
October	29	6
November	30	5
December	25	6
	278	40

## SMALL POX

We had one case in June 1905. It was an imported case of mild type though unvaccinated and made a good recovery. A number of suspects were reported.

The following table gives our record in this disease:

YEAR.	CASES	DEATHS
1894	131	18
1895	13	2
1896	0	0
1897	0	0
1898	0	0
1899	22	0
1900	15	1
1901	387	71
1902	901	187
1903	25	3
1904	1	0
1905	1	0

## VACCINATIONS AT CITY DISPENSARY —1905

January	105
February	128

## DEATHS FROM DIPHTHERIA

March	146
April	106
May	960
June	75
July	105
August	204
September	2,756
October	2,455
November	405
December	104
	<hr/> 8,243

## VACCINATIONS

1901	38,288
1902	26,043
1903	4,671
1904	5,555
1905	5,243
	<hr/> 82,800

## DIPHTHERIA.

During 1905 we had reported 1,614 cases and 110 deaths, a mortality of 6.8-per cent.

### DIPHTHERIA CASES AND DEATHS

YEAR	CASES.	DEATHS.
1895	1,321	273
1896	1,261	218
1897	969	137
1898	1,019	133
1899	1,170	124
1900	1,417	143
1901	1,154	103
1902	985	105
1903	1,150	120
1904	1,653	150
1905	1,614	110

## DIPHTHERIA (REPORTED CASES BY MONTHS)

MONTH	CASES	DEATHS
January	120	11
February	122	9
March	131	4
April	144	7
May	158	11
June	119	8
July	87	5
August	88	6
September	116	7
October	147	16
November	157	11
December	184	15
Total for 1905	1,614	110

## DIPHTHERIA (ANTITOXIN USED)

YEAR	CASES.	DEATHS.	PERCENTAGE
1895	384	52	13
1896	905	106	11
1897	563	61	11
1898	646	68	10 1-2
1899	798	70	8 77 100
1900	987	80	8 1 10
1901	956	58	6 6-100
1902	775	61	7
1903	953	71	7 4 10
1904	1,399	95	6 7-10
1905	1,421	82	5 77 100

## DIPHTHERIA (ANTITOXIN NOT USED)

YEAR	CASES.	DEATHS	PERCENTAGE
1895	937	221	23
1896	356	112	31
1897	406	76	19
1898	373	65	17 1 2
1899	372	54	14 1 2
1900	430	63	14 6 10
1901	198	45	22 7-10

1902	210	44	19
1903	197	49	24 87-100
1904	254	55	21 65-100
1905	193	28	14 5 10

### EPIDEMIC CEREBRO SPINAL MENINGITIS

By a resolution of the Board, Cerebro Spinal Fever was added to the list of notifiable diseases on April 4, 1905. Hence our list for the year is necessarily imperfect, and there is some discrepancy between the reported cases and deaths. The difficulty of accurate diagnosis is considerable, though Lumbar puncture and the macroscopic examination have proven a valuable aid.

### REPORTED CASES AND DEATHS

MONTH	CASES.	DEATHS.
January	0	0
February	0	0
March	0	0
April	39	23
May	36	26
June	13	15
July	11	11
August	3	6
September	3	3
October	0	0
November	1	0
December	4	6
Total for 1905	110	90

### VITAL STATISTICS.

The following is a summary of chief statistics reported.

#### DEATHS — 1905

Total Deaths	5,025
Tuberculosis	781
Diphtheria	110
Scarlet Fever	45
Typhoid Fever	40

## BOARD OF HEALTH

Small Pox . . . . .	5
Whooping Cough	45
Measles . . . . .	13
Tetanus . . . . .	5
Cerebo Spinal Meninge	117

## BIRTHS—1905

White .. . . .	6 979
Colored	131
Total	7 110
Rate per thousand, 25 1 10	

## MARRIAGES—1905

White	3 046
Colored	117
Total	3 163
Rate per thousand 11 1 10	

## STILL BIRTHS—1905

White . . . . .	389
Colored	18
Not Stated	0
Total	407
Rate per thousand, 1 4-10 per cent	

## DEATHS BY SEX —1905

Males .. . . .	2 786
Females . . . . .	2 239
Total	5,025

## DEATHS BY COLOR 1905

White	4,824
Colored	199
Not Stated	2
Total	5 025

## DEATHS IN INSTITUTIONS

Newark City Hospital	439
St. Michael's Hospital	263
St. Bernard's Hospital	93
German Hospital	55
Essex County Hospital for Insane	65
Little Sisters of the Poor	55
Abbas House	35
St. James' Hospital	77
Leaves Hospital	74
Hospital for Women and Children	15
Beth Israel Hospital	16
St. Joseph's Industrial School	2
Florence Cratenden Home	1
Home for Incorrigibles	9
Holland House	1
Homeopathic Hospital	6
Newark Orphan Asylum	1
Baptist Home	2
Home for Aged Women	6
Fifth Avenue Day Nursery	1
In-City Ambulance	9
Krueger Home for Aged	4
Emergency Hospital	2
Essex County Prison	6
Essex Private Hospital	3
Central R. R. Station	3
Home for Crippled Children	3
Coleman House	1
Washington Hotel	2
St. Vincent's Academy	1
St. Peter's Orphan Asylum	1
Convent Good Shepherd	3

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Total for 1905 1,254

or 24.9-10 per cent of Total Deaths, equal to 4.42-100 per thousand

[TABLE NO. I]  
BIRTHS REPORTED FOR THE YEAR 1905

COLOR		SEX		NATIVITY OF PARENTS							NAME OF CHILD		LEGITIMACY.					
White	Colored.	Male	Female	Not Stated.	Native.	Foreign	Foreign Father only.	Foreign Mother only.	Nativity of Father only Stated.		Nativity of Mother only Stated.		Not Stated.	Stated	Not Stated.	Legitimate.	Illegitimate	Total
6,079	131	3,712	31,8	6	2,786	3,394	515	368	3	4	26	13	1	6,383	727	7,064	46	7,110

[TABLE NO. II.]  
STILL BIRTHS REPORTED FOR THE YEAR 1905.

SEX.			FATHER.			MOTHER			COLOR.			Total
Male.	Female.	Not Stated.	Native.	Foreign.	Not Stated.	Native.	Foreign.	Not Stated.	White.	Colored.	Not Stated.	
221	181	5	157	225	25	168	219	20	389	18	0	407

[TABLE No. III.]  
MARRIAGES FOR THE YEAR 1905.

NATIVITY																			
White		Colored		Native		Foreign.		Not Stated		First Marriage		Second Marriage		Third Marriage.		Fourth Marriage.		Not Stated.	
Male.	Female	Male.	Female.	Male	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male	Female	Male.	Female	Male	Female	Male	Female
3046	3046	117	117	1690	1781	1472	1377	1	5	2890	2849	254	205	12	11	1	2	6	6
																			Total.
																			3163

CONTAGIOUS DISEASES REPORTED BY  
WARDS, 1905.

Wards.	Diphtheria	Scarlet Fever	Typhoid Fever	Cerebro- Spinal Fever	Small- pox.
1	68	52	13	4	
2	64	69	12	6	
3	170	157	12	15	
4	44	32	9	8	
5	90	51	28	3	
6	122	113	13	8	
7	61	103	12	4	
8	110	72	21	1	
9	47	55	4	3	
10	144	83	15	12	
11	101	148	11	9	
12	109	63	13	4	
13	177	131	28	10	
14	198	115	17	11	
15	109	65	20	12	1
1905	1,614	1,309	228	110	1

## MORTUARY REPORT.

Total deaths, 6,325—on a population of 283,289  
Principal causes of death:

SPECIFIC INFECTIOUS		CONSTITUTIONAL	
Diphtheria . . . . .	110	Rheumatism . . . . .	
Membranous Croup . . . . .		a. Acute . . . . .	8
Scarlet Fever . . . . .	45	b. Chronic . . . . .	10
Typhoid . . . . .	40	Diabetes . . . . .	33
La Grippe . . . . .	19	Rickets . . . . .	1
Influenza . . . . .			
Measles . . . . .	13	CIRCULATORY	
Whooping Cough . . . . .	45	Pericardial . . . . .	4
Cer. Sp. Meningitis . . . . .	117	Endocardial . . . . .	222
Erysipelas . . . . .	21	Myocardial . . . . .	46
Septicæmia . . . . .	25	Valvular . . . . .	86
Pyæmia . . . . .		Hypertrophy . . . . .	4
Dysentery . . . . .	22	Dilatation . . . . .	24
Malarial Fever . . . . .	3	Angina Pectoris . . . . .	10
a. Intermittent . . . . .		Fatty Degeneration . . . . .	18
b. Continued . . . . .	1	Other Diseases . . . . .	41
Syphilis . . . . .	13		
Tuberculosis . . . . .	60	ALIMENTARY TRACT	
a. Pulmonary . . . . .	647	Mouth . . . . .	4
b. Lymphatics . . . . .		Stomach . . . . .	13
c. Serous Membranes . . . . .	11	Gastritis, Acute . . . . .	19
d. Osseous . . . . .	11	Gastritis, Chronic . . . . .	15
e. Larynx . . . . .	7	Stomach Ulcer . . . . .	8
f. Brain and Cord . . . . .	45	Enteritis . . . . .	156
Other Conditions . . . . .	2	Diarrhœa . . . . .	12
		Cholera, Infant . . . . .	111
DEVELOPMENTAL		Colitis . . . . .	18
Cyanosis . . . . .	11	Enterocolitis . . . . .	33
Marasmus . . . . .	153	Appendicitis . . . . .	29
Inanition . . . . .	55	Strangulation, Bowel . . . . .	15
Senility . . . . .	78	Obstruction, Bowel . . . . .	25
Cancer . . . . .	264	Liver Diseases . . . . .	93
Tumors . . . . .	4	Pancreas Diseases . . . . .	1
Other Conditions . . . . .	10	Peritoneum Diseases . . . . .	29
		Surg. Diseases . . . . .	6

## RESPIRATORY

Laryngitis	3
Of larynx	2
Croup (See Diphtheria)	3
Bronchitis, Acute	49
Bronchitis, Chronic	34
Broncho-Pneumonia	136
Capillary Bronchitis	28
Pneumonia	349
Pleurisy, Acute	11
Empyema	14
Asthma	19
Gangrene, Lung	1
Abscess, Lung	1
Other Diseases	27
Surgical Diseases	1

## GENITO-URINARY TRACT

Nephritis, Acute	55
Nephritis, Chronic	235
Pyelonephritis	2
Uræmia	54
Uræmic Convulsions	3
Surg. Diseases	7
Other Diseases	6
Cystitis	11

## FETAL ACCIDENTS

Puerperal Fever	25
Eclampsia	5
Placenta Prævia	2
Hæmorrhage	6
Embolus and Thrombus	22
Premature Birth	120
Other Complications	15
Surgical Diseases	14

## TOXAEMIAS

Alcohol	42
Lead	2
Ill. Gas 21+Suicide, 10=	31
Carb. Acid 4+Suicide, 35=	39
Pyromaines	1

## BLOOD AND DUCTLESS

## GLANDS

Anæmia	6
Anæmia Pernicious	8
Leukæmia	5
Goitre	2

## NERVOUS SYSTEM

## BRAIN AND SPINAL CORD

Meningitis	71
Apoplexy	225
Paralysis	33
Neuritis	10
Hemiplegia	15
Brain Softening	9
Brain Hæmorrhage	34
Brain Tumors	7
Paralysis Agitans	3
Convulsions, Infant	85
Epilepsy	7
Surg. Diseases	4
Other Diseases	28

## UNCLASSIFIED

Accidents	151
Suicides	34
Homicide	3
Gangrene	6
Exhaustion	7
Other Cases	19
Total	5,025

## REPORT OF THE CHEMIST

*Mr David D. Chandler, Health Officer:*

DEAR SIR: I herewith submit my annual report for the year ending December 31st, 1905.

## MILK.

The examination of milk has continued to be the principal work of this department during the year. The number of samples analyzed is 25 per cent in excess of the number last year and the time involved has been considerably increased on account of the larger number of cases taken into court and many adjournments of trials.

The results of these trials have been extremely satisfactory as compared with former years. Heretofore it has been difficult in many cases to secure a conviction when a verdict was rendered by a jury, but in only two cases were adverse decisions given and in both of these a reversal of the verdict, in favor of the Board, was obtained on appeal to a higher court. It is also of interest to note that in two of these cases suits were instituted and won because of the presence of preservative in the milk without reference to its quality as compared with the State standard in other respects.

These results doubtless quickly become known to the dealers and should have a salutary effect on their product. Nevertheless, it is but fair to state that the vendor is not always responsible for the condition of his milk. The retailer often buys from the wholesaler and the wholesaler from the farmer without either of them being certain that he is buying pure milk. It has become the custom among some of the larger wholesalers and milk companies to keep far better control of their milk as received from the farmers,

that formerly, in the line of making scientific tests, so that where a certain supply of milk is a full flow in quality it can be mixed with that of a better grade before distribution. The result of this practice is practically illustrated in the case of one of the large companies doing business in New York, by the fact that it is now a rare thing to find any of their samples below the standard, although formerly it was not of unfrequent occurrence.

### BOTTLED MILK.

There are a number of reforms which could be adopted in the ordinary methods of handling and caring for milk but, without discussing the general possibilities in this direction, I want to call attention to a certain abuse of the system of distributing milk in bottles, mentioned by Mr. Schalk, our Inspector. The bottled milk trade has grown enormously in recent years and there is a large demand on the part of the public for that form of a container on the supposition that the milk is only handled once and put in clean bottles at the dairy, thus avoiding the constant exposure, handling and other objectionable features of milk dispensed from cans. The matter referred to is the occasional refilling of unclean bottles on the wagon, collected en route, from one customer and their immediate sale and delivery to another. It is obvious that disastrous results, in the transmission of disease might follow this practice, which should be carefully guarded against, as well as the use of unclean bottles at the dairy.

The tables of analyses have been found very convenient for reference in the past and have been arranged for this year and the comparison table continued to date.

## CLASSIFIED TABLE OF MILK ANALYSES

20

222 Samples having a percentage of Total Solids of 12.50 and over  
Average for Solids, 13.14. Average for Fat, 4.10.

Ser. nos.	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
13.44	4.70	13.47	4.50	13.15	4.60	12.73	5.60	13.13	4.20	13.29	3.70
12.82	4.40	13.34	4.00	12.76	4.60	12.91	4.20	13.61	4.30	13.19	3.70
13.09	4.67	12.73	4.00	12.72	3.70	15.83	4.37	12.78	3.60	13.67	4.20
14.87	4.34	12.72	3.70	12.65	3.60	12.68	3.80	12.95	3.80	14.45	5.40
12.94	3.90	13.12	4.00	12.79	4.50	12.63	3.80	13.00	4.00	12.91	4.30
12.65	4.60	13.28	4.10	13.68	4.30	13.35	4.20	12.99	3.80	13.16	3.90
12.61	3.60	12.66	4.20	13.13	3.90	13.16	3.75	12.51	3.70	13.24	4.40
12.90	4.30	14.33	5.05	12.78	3.50	12.57	4.00	12.97	3.90	12.85	4.10
13.14	4.30	13.61	4.37	13.59	4.20	13.06	4.15	12.79	3.90	12.75	3.40
13.02	3.50	13.64	4.40	12.64	3.70	12.69	3.80	13.38	4.35	13.35	3.90
13.69	4.65	12.87	4.40	12.91	4.00	13.06	4.65	12.54	3.10	14.05	4.60
12.78	3.90	12.78	4.40	13.18	4.00	12.79	3.90	14.18	4.80	12.79	3.80
12.98	3.70	15.97	7.00	12.70	3.50	12.55	4.00	13.75	4.30	12.95	3.10
13.71	4.00	13.01	3.65	13.79	4.50	13.18	3.60	13.08	4.00	12.79	3.75
13.29	4.10	13.07	3.70	12.79	3.80	12.56	4.20	13.45	4.45	12.77	3.70
13.00	3.80	12.77	3.50	12.73	3.40	12.50	3.50	12.86	4.10	13.18	4.30
12.83	3.90	12.62	3.70	12.81	4.00	13.00	3.90	14.02	4.40	13.20	4.20
12.84	3.60	12.85	3.30	12.50	3.80	13.67	4.05	13.99	4.60	13.43	4.30
12.58	3.75	12.70	3.80	13.28	4.00	13.90	7.60	13.22	4.00	13.55	4.60
13.70	4.70	13.43	3.90	12.84	3.65	13.05	4.10	12.92	3.80	13.24	3.90
13.32	4.05	13.03	4.10	13.18	4.20	13.15	4.05	13.29	4.00	13.62	4.40
14.56	4.90	13.19	4.20	14.78	6.00	12.59	3.40	13.15	4.10	12.97	3.70
12.91	3.65	12.80	3.80	12.55	3.80	12.75	3.20	12.61	3.40	13.30	4.40

# CLASSIFIED TABLE OF MILK ANALYSES. - CONTINUED

222 Samples having a percentage of Total Solids of 12.50 and over.

Average for Solids, 13.14      Average for Fat, 4.10.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
12.52		12.82	3.85	12.60	3.25	13.34	4.35	13.16	3.40	14.11	4.30
12.87		12.77	4.20	12.93	4.10	12.51	4.00	13.20	3.70	13.23	4.10
13.18	3.60	13.12	3.90	13.45	4.20	12.57	3.50	13.34	3.90	12.90	3.80
12.75	3.50	13.24	4.00	13.76	5.00	13.37	4.60	13.27	4.15	12.90	3.70
12.78	3.80	12.72	3.95	13.15	4.20	12.64	4.00	13.25	4.00	13.62	4.15
13.45		13.30	3.80	13.08	4.60	13.38	4.10	13.22	3.80	13.32	3.80
12.78	3.50	12.84	4.00	12.60	3.30	13.32	4.40	13.54	3.80	12.56	3.75
13.30	4.10	13.02	4.10	12.66	3.60	12.86	3.80	14.74	5.10	12.64	3.30
13.18	3.90	13.73	4.30	13.62	4.60	13.41	4.50	13.84	4.15	12.81	3.80
12.92	3.80	12.76	3.75	13.45	4.35	14.15	4.70	12.60	3.90	12.62	3.60
12.64	3.75	13.76	4.60	12.57	3.30	13.03	3.95	13.24	3.40	12.98	3.55
12.50	3.65	12.72	3.70	12.56	3.80	13.17	3.80	14.49	5.10	13.30	4.30
12.74	3.65	13.20	4.20	13.03	4.00	13.91	5.20	12.70	3.50	13.46	3.70
14.30	5.00	11.20	5.10	13.02	3.60	14.06	4.80	13.18	4.00	13.30	3.90

# CLASSIFIED TABLE OF MILK ANALYSES. CONTINUED

132 Samples having a percentage of Total Solids between 12.00 and 12.50  
Average for Solids, 12.22. Average for Fat, 3.49.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
12.10	3.40	12.37	3.50	12.13	3.40	12.16	3.60	12.07	3.40	12.00	2.70
12.36	3.60	12.41	3.45	12.47	3.80	12.14	3.30	12.30	4.00	12.41	3.60
12.10	3.20	12.30	3.20	12.18	3.40	12.18	3.30	12.06	3.40	12.30	3.20
12.00	3.20	12.03	3.60	12.00	3.30	12.14	3.60	12.02	3.50	12.30	3.30
12.37	3.55	12.30	3.60	12.24	3.40	12.14	3.40	12.06	3.30	12.34	3.40
12.26	3.30	12.36	3.60	12.00	3.30	12.34	3.50	12.18	3.40	12.52	3.20
12.10	3.65	12.00	3.30	12.38	3.50	12.25	3.40	12.11	3.40	12.32	3.50
12.00	3.75	12.44	3.30	12.02	3.65	12.46	3.80	12.11	3.80	12.00	3.40
12.49	3.65	12.34	3.55	12.32	3.50	12.29	3.60	12.18	3.40	12.52	3.40
12.33	3.35	12.11	3.30	12.36	3.65	12.18	3.50	12.49	3.80	12.38	3.50
12.10	3.45	12.00	3.30	12.12	3.50	12.37	3.60	12.22	4.00	12.24	3.40
12.37	3.60	12.17	3.45	12.29	3.60	12.18	3.40	12.10	3.60	12.34	4.20
12.14	3.30	12.37	3.75	12.23	3.60	12.41	4.00	12.23	4.80	12.37	3.60
12.44	3.70	12.00	3.60	12.00	3.10	12.27	3.60	12.18	3.80	12.00	3.50
12.00		12.38	3.40	12.34	3.60	12.36	3.60	12.42	3.50	12.28	3.50
12.00		12.36	4.10	12.37	3.40	12.13	3.80	12.31	3.40	12.09	3.10
12.29	3.70	12.17	3.15	12.24	3.30	12.21	3.85	12.13	3.80	12.32	3.80
12.27	3.20	12.00	3.20	12.45	3.35	12.11	3.60	12.46	3.50	12.2	3.35
12.31	3.20	12.43	3.06	12.00	3.15	12.22	3.80	12.46	3.60	12.22	3.00
12.30	3.50	12.00	4.10	12.24	3.50	12.16	3.70	12.41	3.05	12.25	3.50
12.26	3.50	12.10	3.65	12.06	3.50	12.49	3.60	12.08	2.70	12.21	3.20
12.01	3.20	12.48	3.50	12.36	3.75	12.20	3.40	12.27	3.50	12.37	3.65

# CLASSIFIED TABLE OF MILK ANALYSES—CONTINUED

91 Samples having a percentage of Total Solids below 12.00  
Average for Solids, 11.38      Average for Fat, 3.04.

Solids	Fat	Solids.	Fat	Solids.	Fat.	Solids	Fat	Solids	Fat	Solids	Fat.
11.43	2.97	11.31	3.15	11.46	3.00	11.77	3.00	11.61	3.25	11.72	2.97
11.90	3.40	11.84	3.45	11.80	3.30	11.73	3.40	11.37	3.35	11.53	3.05
11.06	3.35	11.09	2.90	11.78	3.40	11.68	3.30	11.64	3.40	11.64	3.10
10.95	3.85	11.64	3.00	11.88	2.80	11.95	3.50	11.31	3.50	11.44	3.10
11.12	2.50	11.63	2.50	11.84	2.60	11.31	3.00	11.67	3.80	11.20	3.00
11.40	2.40	11.39	3.00	11.17	2.40	11.86	3.20	11.91	3.70	11.50	2.80
10.81	1.60	11.29	2.60	11.44	3.30	11.75	3.60	11.62	3.60	11.00	1.60
11.64	2.70	9.00	2.20	10.68	3.20	11.71	3.20	11.27	2.50	11.94	2.70
10.66	3.40	8.99	2.20	11.68	3.40	10.70	2.40	11.78	3.50	11.38	2.60
10.58	2.95	11.78	3.20	11.48	3.60	10.89	3.00	11.80	3.40	11.60	1.70
11.70	3.35	10.89	2.40	11.85	3.30	11.64	3.10	10.68	3.60	11.67	2.60
11.90	3.00	11.19	3.30	11.29	3.40	10.27	2.30	11.93	3.60	11.69	2.60
11.79	3.55	11.90	3.40	10.84	3.30	11.62	3.60	11.36	3.20	10.86	3.00
11.63	3.20	10.96	3.30	11.86	3.10	11.66	3.20	11.87	3.95	11.71	3.40
11.73	3.40	10.12	2.30	10.63	2.45	11.47	3.20	11.96	2.60	11.72	3.10
		...								10.92	3.40

## COMPARISON TABLE

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BOARD OF HEALTH

Year	1897	1898	1899	1900	1901	1902	1903	1904	1905
Number of samples analyzed	166	178	221	283	263	330	465	342	445
1st class	Percentage of samples								
	Average % of total solids								
	Average % of fat								
2d class	69.12	70.23	72.40	65.37	63.82	58.18	61.80	54.75	49.90
	13.24	13.24	13.06	14.25	13.10	15.18	12.97	13.67	13.14
			3.96	4.06	4.01	4.16	3.88	4.05	4.10
2d class	21.32	14.15	15.38	21.55	22.87	27.88	21.29	37.76	29.66
	12.23	12.35	12.27	12.25	12.25	12.25	12.25	12.26	12.22
			3.60	3.56	3.52	3.55	3.50	3.60	3.49
3d class	19.56	15.73	12.22	13.07	13.31	13.94	15.91	17.89	20.44
	11.61	11.58	11.48	11.56	11.82	11.44	11.51	11.25	11.38
			3.11	3.25	3.08	3.13	3.18	3.10	3.04
<hr/>									
General average % of total solids	12.87	12.82	12.75	12.77	12.70	12.64	12.60	12.52	12.51
General average % of fat . . . .			3.80	3.85	3.75	3.81	3.68	3.75	3.61

## COMPARISONS.

In comparing with former results we find a smaller proportion in the first class but with a little better average quality. There is another increase in the percentage of samples below the standard, but this is mostly due to the efforts of the inspector in searching for such milk.

The fact that so large a proportion of the samples taken under the conditions of milk inspection shows an average quality of over 13 per cent of Total Solids and over 4 per cent of Fat might be taken as indicating a good milk supply, according to chemical standards.

## PRESERVATIVES.

Although the milk examined in Newark for several years past has indicated the small use of preservatives, compared with other parts of the State, there was an apparent increase in the use of formaldehyde during the summer. Nine samples out of one hundred and six tested during June, July and August were found to contain it, and four of them were below the standard as well. Although preservatives are used in both pure and adulterated milk they are more apt to be found in that which has been watered or otherwise tampered with, as such milk has a tendency to sour more readily.

Although the use of formaldehyde in milk, as well as other preservatives, is against the law in many states and nowhere legalized, some authorities have recently advanced the idea that it might be used with advantage under certain conditions.

## THE CITY AQUEDUCT WATER.

There is little to be said about the quality of the city water except what has been stated in previous reports as is noted there is no material change. The average Total Solids in the water is not material, very low being less than two and one half grains per gallon.

The completion of the new storage reservoir during the year which is now in progress will probably have a tendency to reduce the turbidity and color, but it is yet too soon to make comparisons.

# ANALYSES OF NEWARK AQUEDUCT WATER

## (PARTS PER 100,000.)

Date, 1905.	Free Ammonia	Albuminoid Ammonia.	Chlorine.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Temporary Hardness.	Total Solids.	Loss on Ignition	Fixed Mineral Residue.	Color.	Temperature, Degrees F.
Jan. 20	.0010	.0070	.10	None	.020	1.40	2.75	1.10	1.65	25	36.5
Feb. 21	.0015	.0076	.20	"	.008	2.30	4.15	2.00	2.75	22	37
Mar. 20	.0008	.0137	.15	"	.005	1.50	3.75	1.35	1.80	23	41
April 20	.0008	.0080	.20	"	None	1.80	3.00	1.20	1.80	25	48
May 20	trace	.0070	.20	Trace	.001	2.20	3.80	1.30	1.50	20	60
June 20	trace	.0064	.15	None	.008	1.90	4.50	1.40	3.10	20	73
July 21	trace	.0106	.10	Trace	.015	1.50	3.10	1.25	1.85		74
Aug. 21	trace	.0087	.10	None	None	1.70	3.60	1.50	2.10	18	68
Sept. 20	none	.0101	.10	.0005	"	2.00	4.55	1.90	2.65	20	69
Oct. 20	.0005	.0140	.15	Trace	.005	2.40	5.00	2.00	3.00	20	68
Nov. 20	.0010	.0120	.12	None	None	2.10	4.50	1.90	2.60	20	
Dec. 21	.0020	.0105	.15	"	.022	2.20	5.00	2.00	3.00	233	39
Average.											
1905	.0007	.00957	.144	Trace	.0082	1.92	4.025	1.625	2.325	214	55.8
1904	.00066	.00922	.166	None	.008	2.166	4.32	1.80	2.463	300	52.2
1903	.00108	.0105	.141	"	.009	2.00	3.973	1.523	2.52	247	54.5
1902	.00178	.0131	.165	"	.0089	2.041	4.165	1.852	2.335	258	54.1
1901	.00252	.0154	.155	"	.0148	2.20	4.653	1.916	2.653	320	53.5
1900	.00242	.0137	.181	Trace	.0142	2.092	4.433	1.901	2.442	286	56

## TOTAL SOLIDS (GRAINS PER U. S. GALLON).

	1900	1901	1902	1903	1904	1905
Maximum . . . . .	3.06	3.00	2.92	2.92	2.92	2.92
Minimum . . . . .	1.96	1.93	1.98	1.69	2.04	1.60
Average for twelve months	2.53	2.68	2.45	2.32	2.52	2.33

## MISCELLANEOUS.

Included under this head are fourteen samples of well water analyzed during the year. Eleven of these were marked "contaminated," three "suspicious" and one "passable."

A sample of breakfast cereal was examined for arsenic and a special sample of milk for preservative and poison, both with negative results.

Some lemon flavor was found to be artificially colored.

A quantity of potcheese, a portion of which was said to have caused several illness in a family, was examined for tyrotoxin. Although the symptoms indicated this poison, none was found and none could be produced in milk by mixing it with some of the cheese and keeping in an incubator for twenty four hours.

One of the grossest examples of food adulteration in our experience occurred during the Summer, when what proved to be pure mineral or machine oil was sold for "salad oil." Efforts to purchase more of this oil from the dealer were unsuccessful and no prosecution followed.

Very respectfully,

HERBERT B. BALDWIN,

*Chemist*

# WELLS RECORDED.

Location of Wells.	Sample No.	Kind and Depth.	For. Mfg. and Domestic Purposes	Privy Vault and Cesspool Within.			Result of Analysis.
				30 ft.	50 ft.	100 ft.	
Johnson ave., 70	874	Open Well, 100 ft.	Domestic			...	Very suspicious.
Taylor, 12 ..	875	Artesian, 20 ft.	"			1 P. V.	Contaminated.
Boudinot, 24 .	876	Artesian, 382 ft.	"				Passable.
So Orange ave., 407 (Val. 8 ft. 6 in.)	877	Artesian.	"	1 P. V.			Suspicious.
Morris ave., 70	878	Artesian, 80 ft.	Mfg.			...	Badly contaminated.
Norwood, 10 (Val. 1. 1/2 ft.)	879	Open Well, 11 ft.	Domestic			1 P. V.	Badly contaminated.
Lafayette, st., 93-107	880	Artesian, 300 ft.	"				Suspicious.
Lafayette st, 262 .	881	Artesian, 1,000 ft.	Mfg				Passable.
Fourth st, 51 ..	882	Artesian, 125 ft.	"				Very suspicious.
Union st., 129 . .	883	Open Well.	Domestic				Contaminated.
Goble st, 10. . .	884	Open Well, 12 ft., 6 in.	"		1 P. V.		Badly contaminated.
Ave. C, 13 . . .	815	Open Well, 15 ft.	"		1 P. V.		Badly contaminated
Ave. C, 19 . . . . .	886	Open Well, 14 ft., 6 in.	"	1 C. P.	1 P. V.		Contaminated.
N 8th st, 598	887	Cistern	"		1 P. V.		Suspicious.
Garrison st., 118-122	888	Bucket, 15 ft.	"		3 C. P.	5 P. V.	Contaminated.
Central ave., 107 .	889	Pump, 35 ft.	"				Very suspicious.



## NEWARK WEATHER IN THE YEAR 1905.

*To Mr D. D. Chandler, Health Officer*

DEAR SIR There are few events of 1905 that, from a meteorological point of view, are worthy of special notice. On January 1 there was no snow on the ground. On January 31 the snow in city streets, on a level, measured eight inches. Notwithstanding this, there had been very little sleighing during the month. On the 8th all city streets were practically clear of "the beautiful." On the 25th, and until the end of the month, snow lay everywhere in huge drifts, its estimated depth on a level being ten inches. Owing to the excessive depth but few ventured forth on runners.

Skating within the limits of the city was a restricted sport this month. Branch Brook was not opened until the 9th, and skating had ceased absolutely by the 24th —after thirteen days of the sport. The snow was not again scraped from the surface of Branch Brook for the rest of the winter.

The greatest snowstorm of the Winter reached town on the evening of January 24; it continued until late in the night of the 25th. The total fall measured on the level exactly ten inches. Several times the wind attained a velocity of forty miles an hour causing excessive drifting of the fleecy flakes. The snow was unusually dry and hard, owing to the fact that the temperature during the storm did not exceed 17 degrees. It went down to 1 degree below zero.

When February began there was still an eight-inch layer of snow upon Newark's house tops and streets. On no day of the month had it entirely disappeared. Cold weather continued to prevail throughout the month. Twice did the temperature fall close to the zero mark.

March's minimum, 10 degrees, was registered on its fifty-fifth day, after which the Winter's long siege was raised. At that time snow had all but vanished, a slight fall on the 7th leaving no perceptible trace. Nor did the thermometer again register a temperature lower than 20 degrees. Freezing weather ended about the 22d. The ice in Branch Brook pond was nearly all melted by the 24th.

Robins were seen in the city gardens on the 13th. Botany students were gathering "pussy willows" in local swamps on the same date. Crocuses of various brilliant hues anticipated the grass of various well-kept lawns in different parts of the city on the 18th of the month. Hepaticas decked local forests and hill-sides on the very first day of April, a week later Dutchman's Breeches, dog-toothed violets, anemones—in fact all Spring flowers—graced the fields of our extensive parks. Tree-planting Day was the 13th of April and so rapidly had Spring weather followed on Winter, that the date seemed late.

Easter Day, the 23d of the month, was clear—in fact, cloudless and very mild. The mercury of the thermometer fluctuated between 40 degrees and 58 degrees, and a gentle breeze gave additional life to the atmosphere.

A hot spell in early May made the inhabitants of this neighborhood feel a Summer of unusual severity. Fortunately, the heat wave was of short duration.

Warm weather did not appear again until after the middle of June. Two days only did the warm weather last at that time. The season was not remarkable for heat; on the contrary it was marked by several cool spells, which came with unusual suddenness and lasted at each visitation for several days.

July was not a hot month, when one considers previous high temperature records. That it was a trying month was unquestionably due to the excess of humidity, also to an unusual absence of convective in the atmosphere. Its last

few days were marked by severe thunder storms, whose precipitation raised the month's total rainfall several inches. August had a few really hot days. Its highest temperature was only 91 degrees. Severe thunder storms marked the period extending from the 8th to the 17th.

When one considers conditions of temperature, humidity, cloudiness, Newark surely was an agreeable spot for the dog-days. There was an excess of absolutely clear days, the average humidity (including that of rainy days) was under 70 per cent, and there was not a single day that was devoid of breezes.

September was a month of purely normal weather. Its warmest day cannot be termed hot. A slight excess of moisture was due to two severe thunder storms. Otherwise it presents a phenomenal record—eighteen absolutely clear days, and only eight days of precipitation.

Early frosts were noted in October. This fact caused numerous denizens of the town, of weather-wise variety, to hazard all sorts of gloomy forecasts for the coming Winter. Two Winters of excessive severity had, no doubt, caused them to forget that ours is not an Arctic climate, that excessively severe seasons are exceptions and not usual occurrences. Ice was formed in exposed places by the 25th day. Vegetation was practically dead by the month's end. Still October had nineteen cloudless days and only seven days of precipitation.

And in our summary of this year's weather, the observer finds that he cannot consistently apply the term dull to the month that follows. November had only three days on which the sun never shone. There were but six days in all that could be called wet. Predictions of an early Winter were not verified. A cold wave on the 14th sent the temperature down to 18 degrees, but that was the lowest point reached during the entire month.

That beautiful spell of glorious weather, mild in temperature, mild in its breezes, gorgeous in its sunshine, known to the inhabitant as Indian Summer, actually put in an appearance this year. The season continued from the 20th to the 28th. At the time its presence created but little comment, because it was preceded by fully four weeks of exceptionally fine weather.

A Thanksgiving Day of similarly beautiful weather made a fit closing to a month whose record for fine weather conditions will not soon be surpassed.

December too, assisted in the agreeable work of producing a record-breaking year for fine weather. Only one cold wave visited us in its season and that was a moderate one that came on the month's first day.

Only a few flakes of snow spotted the sidewalks of the town—those that fell on the 9th and 10th. By sun down on those dates not a trace of them remained, and by the 31st no coating of ice was visible on a pond that lies either within the city limits or in its immediate suburbs. On that date this Winter not a skate had seen service, neither had sled or sleigh made an appearance outside the range of store windows. Hard frosts, such as mark the early mornings of the late Fall, were noted daily.

### JUST A NORMAL YEAR.

These are some of the facts observed by a student of the weather as it actually has been. To philosophize on the causes which produce these variations is not his province, neither would it be consistent with the object of this paper. Still, he will be pardoned by the gentle reader of this summary if he expresses a feeling of gratitude for the difference between this year's record and that of the two previous years. The figures of 1904 and of 1903 showed excesses in every direction. Those of 1905 reveal a year that may be termed in every way normal.

GEORGE C. SONN.

## TEMPERATURE CHART IN FAURENHEIT DEGREES

	Monthly Mean Temperatures *			Maximum Recorded.		Minimum.	
	Perio ls						
	1843-1891	1892-1905	1905	1892-1905	1905	1892-1905	1905**
January .	29	29	25	58	53	10 b.z.	1 b.z.
February .	31	28	22	67	44	9 b.z.	1
March .	38	39	39	79	79	5	10
April .	49	53	50	93	81	24	29
May .	59	61	61	97	82	34	35
June .	69	69	69	99	91	45	47
July . . . .	74	74	74	103	97**	49	56
August .	72	73	70	97	91	50	51
September .	65	66	66	98	86	34	37
October .	53	55	54	89	83	27	30
November .	43	43	41	74	64	15	18
December .	33	32	36	62	59	2	15

Annual mean 1843-1891, 53; 1892-1905, 52; 1905, 51

\*Values above five-tenths are counted as a whole degree.

\*\*\*Highest of year, 97 degrees above zero.

\*\*\*Highest of the year, 97 degrees above zero.

b. z. Below Zero.

## EXCESSIVELY HOT OR COLD DAYS

Avg. No. Days When Temperature Fell Be- low Freezing. 1892 1905.		Days in 1905.	Avg. No. Days When Temperature Rose to 90 Degrees or Above. 1892 1905.		Ditto To- tal for 1905
January .....	26	28	May	1	0
February .....	23	28	June	3	1
March .....	16	19	July	6	7
April .....	3	3	August	3	2
October	1	2	September	1	0
November	9	12			
December	20	21			
Totals	98	110	Totals	14	10

## CHARACTER OF THE DAYS IN 1905.

	Clear (cloudless)	Partly Cloudy (fair)	Cloudy (sunless)	In Which Precipitation Occurred	Ave. Days Precipitation. 1892 1905
January	10	13	8	11	11
February	13	9	6	6	9
March	12	11	8	12	13
April	12	12	6	14	14
May	12	7	12	9	12
June	10	10	10	11	11
July	8	11	12	12	13
August	12	10	9	11	11
September	18	1	11	8	8
October	19	6	6	7	8
November	12	15	3	6	10
December	14	9	8	8	10
Totals	152	114	99	115	130

PRECIPITATION.  
(IN INCHES.)

	Rain and Melted Snow		Total Snow Unmelted		
	Snow	Per.	Yr.	Per	Yr.
	1843 1891	1892 1905	1905 rain or melt'd snow	1892 1905	1905
January . . . . .	3.65	3.48	3.67	9.76	15.15
February . . . . .	3.60	3.98	2.15	11.50	9.75
March . . . . .	3.81	4.05	3.80	5.64	5.20
April . . . . .	3.73	3.51	2.45	1.00	0.00
May . . . . .	3.97	3.67	1.25	0.00	0.00
June . . . . .	3.57	3.95	3.02	0.00	0.00
July . . . . .	4.28	5.77	6.27	0.00	0.00
August . . . . .	5.07	5.81	5.14	0.00	0.00
September . . . . .	3.75	3.54	6.27	0.00	0.00
October . . . . .	3.58	4.35	2.91	0.00	0.00
November . . . . .	3.63	3.32	2.03	2.64	0.00
December . . . . .	3.63	3.70	3.23	6.60	0.00
Totals	46.07	49.14	42.23	37.14	30.14

## MISCELLANEOUS

Barometric Pressure in Inches.							
	Average.	Highest.	Lowest.	Average Wind Direction.	Highest Wind Record. Vel. in Miles per Hour	Average Sunshine * (in per cent.)	Average Humidity (in per cent.)
January	30.08	30.60	29.50	NW	60****	60	73
February	30.14	30.67	29.45***	W	50	62	73
March	30.11	30.55	29.60	SW	30	54	75
April	29.93	30.37	29.65	SW	40	64	72
May	29.99	30.30	29.65	S	60	64	69
June	29.96	30.15	29.72	W	40	52	71
July	29.98	30.16	29.70	W	50	50	72
August	30.09	30.29	29.80	W	30	60	61
September	30.06	30.32	29.85	W	40	62	70
October....	30.12	30.57	29.69	SW	30	68	65
November	30.10	30.55	29.50	SW	40	72	66
December	30.11	30.90**	29.45***	SW	50	60	70

Annual average, 30.05 prevailing direction of wind, WSW

\*Percentage of sunshine is estimated, estimation being based on three observations daily. The figures state percentage of time sun actually shone, compared with time it was scheduled to shine. The bureau has no sunshine recorder.

\*\*Highest barometer recorded.

\*\*\*Lowest barometer recorded.

\*\*\*\*Three times.

### AREA OF CITY AND EXTENT OF PUBLIC IMPROVEMENTS

U. S. Census Population, 1900 ..	246,070
State Census Population, 1905	283,289
Total area of the City's square miles	23 40
Built up square miles .....	15 1 2
Meadow land, square miles .	6 1-2
Length of River and Bay front, miles	10 5 10
Number of miles of granite block	51 90
" " " trap block ..	11 61
" " " telford pavement	23 74
" " " cobble stone pavement	8 92
" " " asphalt pavement .	51 30
" " " brick pavement	14 27
" " " bithulithic pavement	2 01
" " " wood block pavement .	0 075
Total length of paved streets, miles .	163 83
Number of miles of unpaved streets	97 72
Length of Electric Railways, miles	94 89
Length of Steam Railways	25 50
Length of brick sewers, miles ..	70 42
Length of pipe sewers, miles .	135 18
Length of private sewers, miles	26 76
Total length of sewers, miles	232 36
Total number of sewer basins ..	3,152
Length of water mains, miles	331 00
Average daily consumption of water, gallons .	32,525,000
Capacity of water supplied per day, gallons	50,000,000
Number of buildings	36,299

### PUBLIC PARKS

Military, acres	6 45
Washington, acres	3 40
Lincoln, acres	4 37

### NEW PARKS

Branch Brook, acres	277 5
East Side, acres .. . .	12 5
West Side, acres .. . .	23
Weequahic Reservation, acres	2 5 08

In concluding my annual report allow me to again express to your Honorable Board my appreciation of the consideration and support that you have given to me at all times.

It would have been impossible for me to have obtained satisfactory results in my work without your earnest and hearty co-operation.

I also desire to thank the employes in general for the willing and efficient manner they performed their duties.

I am,

Yours respectfully,

DAVID D. CHANDLER,

*Health Officer*





